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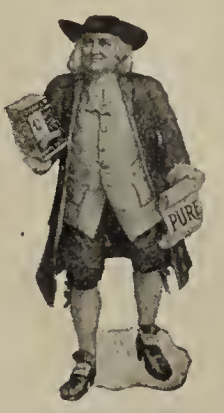
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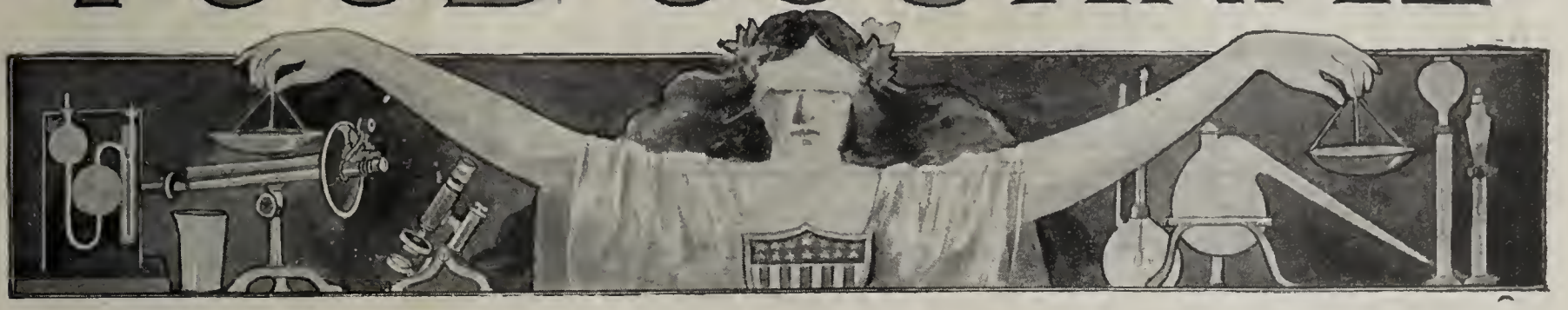
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THE AMERICAN FOOD JOURNAL



VOLUME EIGHT
NUMBER ONE

Chicago, January, 1913

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2 tablespoonfuls sugar
2 tablespoonfuls lard or butter, melted
3 quarts sifted flour
1 tablespoonful salt

Dissolve Yeast and sugar in lukewarm water, add lard or butter and half the flour. Beat until smooth, then add balanee of the flour, or enough to make dough that can be handled, and lastly the salt. Knead until smooth and elastic. Plaee in greased bowl, cover and set aside in a moderately warm plaee, free from draft, until light, about two hours. Mould into loaves. Plaee in well-greased bread pans, filling them half full. Cover and let rise one hour, or until double in bulk. Bake forty to fifty minutes.

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THE AMERICAN FOOD JOURNAL

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Published the 15th of each Month at 15-21 S. Market St., Chicago
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VOLUME VIII. JANUARY, 1913 NUMBER 1.

The American Food Journal and Its Appeal to Women

THE AMERICAN FOOD JOURNAL occupies a unique position in the publishing world. It has always been classed as a trade journal, yet its appeal has been as much to professional people as to commercial factors, and the most remarkable feature of all is that we can venture the assertion without fear of successful contradiction that no other publication of the trade class in the United States has so large a proportion of women readers as THE AMERICAN FOOD JOURNAL.

The reason is apparent. The subject of Food is one which intimately concerns every human being, and none more so than women.

During the past decade the American people have given more thought to food matters, and more has been accomplished in the way of educating the public, improving the diet and securing purity in products designed for human consumption than in any preceding like period of years.

There is none to deny that the activities which have led to so many reforms in food preparation and handling, and the adoption of both national and state pure food laws were largely originated and sustained by women. Individually, and through their clubs and various kinds of organizations, they have labored incessantly and effectively, and to them belongs a generous share of credit for all the good that has been accomplished in the campaign which the country has been waging for pure foods.

Women as a class have consistently and persistently supported and upheld food and health officials in their tasks, assisted them in their investigations, informed them of conditions demanding correction, and in a word have been the most influential single factor in making possible the achievements that have been compassed in this important field of activity. Much has been done; most people will agree that the worst part of the housecleaning is over, but there still remain corners to be dug out; new matters come up constantly which require intelligent attention; the house must be kept in order.

It is vitally necessary to the cause of pure food that women keep themselves posted as to just what has been done and is being done, privately and officially, toward insuring the continued production and manufacture of foods under sanitary conditions, and from wholesome products. They must possess authoritative information as to what states and nation are doing, or attempting to do, in the way of pure food legislation, and the enforcement of the pure food laws we already have. In all this THE AMERICAN FOOD JOURNAL is available to woman and gives her just the information in these respects that she requires, and presents it in concise, readable form not available through any other source. This fact is what has brought us so many women readers.

We believe that our women subscribers, considering their number, are entitled to more specific consideration at the hands of THE AMERICAN FOOD JOURNAL than they have received in the past, and beginning with the Volume Eight, of which this January issue is the first number, we expect to devote more space to this part of our clientele. In doing this we shall not make the magazine one whit less valuable to others readers, but will make it more interesting to womankind, accomplishing this end largely through our present Domestic Science department.

We want to emphasize the fact that we have no intention to metamorphose into a cook book, nor attempt to make an appeal for popularity through frothy "feature articles." We shall maintain our individuality, cling to our old ideals, and THE AMERICAN FOOD JOURNAL will continue to be distinctly a food magazine.

Food is the biggest, livest subject in the world, and there is ample field for a serious, reliable publication of our present character, and we intend to continue to occupy it. Nothing is so good but that it can be improved, however, and that is what we intend to do—improve our magazine on the lines indicated.

Readers of THE AMERICAN FOOD JOURNAL will during 1913 be given a broader and more comprehensive review of matters relating to health and nutrition than ever before. Many of our special articles

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will deal with valuable investigations or discoveries that may be made in lines of direct bearing upon these and allied subjects, and we expect to present these in such form as will enhance their popular interest without decreasing their educative value.

Our ambition is more to instruct than merely entertain, and we would welcome criticism and suggestion from any of our readers, as to how we can make THE AMERICAN FOOD JOURNAL more valuable to you.

NEW CHIEF FOR THE BUREAU OF CHEMISTRY.

AFTER a delay of the better part of a year, President Taft on December 16, instructed Secretary of Agriculture Wilson to appoint to the vacant office of Chief of the Bureau of Chemistry, Dr. Carl L. Alsberg. Dr. Alsberg was at the time of his appointment attached to the Bureau of Plant Industry of the Department of Agriculture and is believed to be fully qualified, both from scientific and executive standpoints to satisfactorily fill the difficult position to which he has been appointed.

The position of Chief of the U. S. Bureau of Chemistry has within the past few years assumed such importance and prominence that, although it is subordinate to that of Secretary of the Department of Agriculture, and previously the appointment has been made by the secretary without consultation with the President, in the present instance the final decision as to the appointee was assumed by the President himself.

It was only after the most careful consideration and extensive consultation that Dr. Alsberg was selected as Chief Chemist, and there is every reason to believe that an act which was undertaken with so much caution will prove to be a wise one. The AMERICAN FOOD JOURNAL has been an earnest advocate for the appointment of Dr. Alsberg for the office, and is naturally much gratified that his selection has at last been officially made. We believe that he will make an excellent Chief, and that his administration will give satisfaction to all—except perhaps a few disgruntled factors whose own bruises received during the late imbroglio in the Bureau matters are too fresh not to be painful, and who probably would not be pleased at any appointment that might have been made, other than that of themselves.

Everyone who has the interests of the whole people at heart will agree with the editor of this magazine that the new Chief should be allowed to assume and direct his office without prejudice from any source. The American people believe in a square deal right through and Dr. Alsberg should be given a fair chance to make good.

To many commercial interests Dr. Alsberg is not well known and these people are making no published comments on his appointment so far as we have noticed. The New York Journal of Commerce interviewed a number of prominent people in an effort to get an expression from them as to their opinion of the fitness of Dr. Alsberg for the position of Chief Chemist and reports, that in the drug trade where he is slightly known it is stated he is a chemist of experience and should make a good head of the Bureau. In scientific circles Dr. Alsberg was praised, chemists expressing high esteem for his natural abilities.

Dr. Charles Baskerville, professor of chemistry and director of the chemical laboratory of the College of the City of New York, said he knew Dr. Alsberg and regarded him as a very competent and honorable gentleman. He said:

"Dr. Alsberg is well known and respected in the chemical profession. He has done good work in the past, and there is no reason why he should not perform the duties of his new office as Chief of the Bureau of Chemistry honestly and efficiently."

The AMERICAN FOOD JOURNAL expects Dr. Alsberg to prove the wisdom of his appointment, and is going to give him a fair chance to do so. We believe him to be honest and capable, and that his past record warrants our confidence. Dr. Alsberg can count on the AMERICAN FOOD JOURNAL to be an absolutely fair and unprejudiced watcher of his record, and we feel sure that it will be a splendid one.

THE RIGHT WAY TO MEET CALUMNY.

WE venture to assert that there is no class of food manufacturers who have been more willing to do everything in their power to bring their products in conformity with pure food laws and to conduct their factories in a strictly sanitary manner than fruit and vegetable canners. That there were originally wrong practices and abuses in that industry no one will attempt to deny, but the statement is freely made today that probably fully 95 per cent of our canned goods are clean and wholesome.

Recently a special writer in some of the daily papers began a sensational so-called "expose" of conditions in canning factories, referring especially to fruit and vegetable canners, and made a number of serious charges, if true, in reference to the sanitary conditions found in factories visited, and cruelty to women and children in the employ of the canners.

Naturally canners were immediately aroused over what they declared to be unfounded charges and the articles were called to the attention of members of our National Legislature with the result that Representative Allen introduced a resolution calling for investigation of the charges. The resolution was referred to the House Committee on Rules and ordered to be printed. They read as follows:

Whereas, It is charged that in certain canneries and canning districts of the United States, fruits and vegetables intended for consumption throughout the various states are prepared and canned amid filthy conditions by workers who are diseased and who live and work in an environment that makes cleanliness and health impossible, and

Whereas, It is further charged that women, and children of tender years, are employed under the above conditions in said canneries for long hours and for inadequate pay, now, therefore, be it

Resolved, That a committee of five members, to be selected by the House, be, and is hereby, authorized and directed:

First. To investigate as to whether there are or are not canneries in the United States where fruits and vegetables, intended for consumption by the people of the United States and elsewhere, are prepared and canned by workmen with dirty and bandaged hands, or suffering from diseased bodies, and under filthy conditions and surroundings.

Second. To investigate whether the employes of such canning factories are compelled to work on dirty floors and to live in filthy quarters without sufficient water or sanitary provisions.

Third. To investigate as to whether women, and children of tender years, are employed in said canning factories for unreasonable length of hours per day and for inadequate pay.

Fourth. To investigate as to whether the pure food laws of the United States are being violated by said canning factories.

And said committee shall report to the House all the facts and circumstances disclosed by the investigation herein provided, with such recommendations as it may deem advisable.

Said committee, as a whole or by subcommittee, is authorized to sit during sessions of the House, and the hearings shall be open to the public, and the committee, as a whole or by subcommittee, is authorized to employ clerical and other assistance, to compel the attendance of witnesses, to send for persons and papers, and to administer oaths to witnesses.

Instead of resenting the prospect of a rigid investigation of their industry the canners of the country, while denying that there is any basis of fact for the charges made, do not discourage an official investigation, but rather invite it, knowing that a complete vindication will result, and that the industry in the end will benefit by the procedure. Through the National Canners' Association, which has a most progressive publicity department, the House of Representatives have been advised that the canners of the country wish the investigation to be had, and proffers its aid to make the examination complete and thorough. The National Canners' Association sent the following telegram bearing on the subject to Congressman J. H. Covington:

Hon. J. Harry Covington, House of Representatives, Washington, D. C.

Prompted by the resolutions introduced by Congressman Allen of Ohio, the National Canners' Association, representing in output 75 per cent of the industry, invites fullest investigation of the House of Representatives and offers its services to make the probe as thorough as possible. This association is also on record favoring governmental inspection of all canners.

BERT M. FERNALD, First Vice President.
FRANK E. GORRELL, Secretary.

This is decidedly the right way to meet the situation and will do more to gain the good will and confidence of the people and nullify the effects of the published calumnies than any quantity of mere denials of the statements would do. The canners feel that they have nothing to conceal and they are anxious to have the public know the facts. Such an investigation as that proposed is the only effective way of "laying the ghost" of unjust charges, and we are glad to see the canners meet the proposition in the open and above board way they are doing. It will pay them well in the end.

WEARY OF MUCK-RAKING METHODS.

IT would seem to be rather strongly evident that the public is becoming exceedingly weary of muck-raking methods, and sensational reiteration of statements concerning our food, which are simply revolting and disgusting to the mind and accomplish no good. Dr. Wiley as a pure food exponent in the past won the support of a considerable class of women who no doubt honestly believed that he was disinterestedly waging a righteous war in order to secure for the people pure food. Most of these women have had, in all probability, opportunity to hear but one side of such controversies as have arisen between the Government through the Bureau of Chemistry under Dr. Wiley's direction and many manufacturers of foods. It is, perhaps, only natural that they, being largely uninformed as to actual facts in many cases, should have been led to believe Dr. Wiley to be the sole champion of their interests.

When William Randolph Hearst thought to take advantage of Dr. Wiley's popularity among these women and announced after his resignation from office that his services had been secured as a special contributor to the Good Housekeeping Magazine, doubtless the women subscribers to that magazine really believed that its publishers were doing them a great service. We have often wondered how many of the several hundred thousand subscribers of Good Housekeeping Magazine were aware of the fact when it became a Hearst publication. However much some of them may have admired Dr. Wiley, there are few of the better class of more informed and cultured women who think well of Hearst and his journalistic methods.

It is very apparent that Dr. Wiley's department in Good Housekeeping Magazine has not created the intense enthusiasm among its readers which Mr. Hearst anticipated. In fact, we wouldn't be surprised if Dr. Wiley's unnecessarily vulgar and revolting manner of expressing himself in some of his articles had severely offended the readers of that magazine. It is not the purpose of the foregoing sentences to discuss the truthfulness or untruthfulness of Dr. Wiley's statements referred to; we simply question the good taste, need or effectiveness of vulgarity and coarseness of expression when writing on any subject for the benefit of intelligent readers.

At any rate, for some reason, if not for the one we have suggested, Mr. Hearst has deemed it necessary to his purposes to reprint the Wiley department articles which have appeared in late numbers of Good Housekeeping Magazine in his daily papers. We venture to predict that the effect on the public will be disappointing to Publisher Hearst. As a star headliner sensation artist, Dr. Wiley is very rapidly losing his usefulness. The public is becoming painfully weary of his methods of publicity. The people are becoming decidedly bored with continual harping on single themes, and constant exposure of sore thumbs and will turn to the administration of the Bureau of Chemistry under its new head with a distinctly audible sigh of relief. It is pretty generally agreed that it is high time to stop muck-raking on food matters and to pursue the agitation for pure products in more businesslike and less sensational manner.

FOOD COMMISSION REPORTS.

A CONSIDERABLE part of this issue of the AMERICAN FOOD JOURNAL is given over to the report of the Illinois State Food Commissioner and that of the bacteriologist of the commission. We hope that our readers will take the trouble to read carefully both of the reports given as they contain much valuable information.

As to what has been actually accomplished in the way of securing for the people of Illinois pure foods, the figures covering the analyses of samples taken by the inspectors for that purpose speak conclusively. Of the samples analyzed which the commissioner's report covers, 3157 were found pure, while 1636 were adulterated or mislabeled. Of the samples found not conforming to the requirements of the law, 942 were disposed of by simple hearings at which it was found that the cases were of such minor or technical character as are easily corrected, and do not menace seriously the good of the people. This left 247 cases of sufficient seriousness to require suits. This impresses us as being an exceedingly fine showing for the state of Illinois, and is certainly a splendid commentary on the effectiveness of the work of the State Food Commissioner, Hon. Alfred H. Jones, and his able corps of assistants.

The report of the bacteriologist of the State Food Commission, Dr. Louis J. Tint, as made to Commissioner Jones, is given in full, as we believe it worthy of special attention. This part of the work in connection with the State Food Commission was undertaken less than a year ago, and in the few months he has been working Dr. Tint has demonstrated the need for such labor, and his educational and experimental equipment as bacteriologist, pathologist and physician, gives him a greater grasp on the duties of his position and enables him to make broader and more valuable deductions than is usually the case when one is a bacteriologist only.

PLANNING FOOD OFFICIALS CONFERENCE

MR. R. M. Allen, head of the Food and Drug Division of the State University of Kentucky, is planning an informal meeting of the food commissioners and chemists of Kentucky and contiguous states, to be held about the middle of February at Lexington, Ky. The exact date has not yet been decided upon. It is believed that an informal conference at which inspectors could discuss details of inspection, commissioners consider matters in reference to labels for food products and administration of laws, while chemists might take up scientific questions of similar import, would be very beneficial. This is the plan for the Lexington meeting.

A general invitation to attend will be extended to the trade, and opportunity will be given for such commercial interests as are present to discuss matters in which they are equally interested with commissioners and chemists. Details of program, dates, etc., will be sent to interested parties by Mr. Allen as soon as they are definitely settled.

PRESIDENT ADVISES HIGHER FOOD TRIBUNAL.

PRESIDENT Taft, in his message to Congress, urged the passage of an act to legalize a court authorized to review decisions on cases under the Pure Food and Drugs Act, in much the same manner as is now done by the Referee Board.

While approving the creation of the Referee Board, the President said the time had come for Congress to recognize the necessity for a distinctly and legally authorized court of appeals in food cases.

"While we are struggling to suppress an evil of great proportions like that of impure food," said the President, "we must provide the machinery in the law itself to prevent its becoming an instrument of oppression, and we ought to enable those whose business is threatened with annihilation to have some tribunal and some form of appeal in which they may have a complete day in court."

We believe this is a splendid suggestion, and one to which no reasonable minded person could take exception. If such a tribunal as that which the President suggests were established it would be possible to definitely settle the vexatious problems which have been agitating manufacturers and the Bureau of Chemistry authorities, and give appealed decisions a legal standing that would enable manufacturers to know "where they are at," and at the same time give them the satisfaction of feeling that they had been fairly dealt with.

MR. J. W. HELME APPOINTED MICHIGAN FOOD COMMISSIONER.

GOVERNOR FERRIS of Michigan, on January 2, named as Dairy and Food Commissioner of Michigan, Mr. J. W. Helme, who for the preceding year had filled the office actively in the capacity of deputy commissioner. The appointment was immediately confirmed by the state senate of Michigan in open session by a unanimous vote. In making this appointment Governor Ferris is giving just recognition to work efficiently performed, for Mr. Helme has administered the office in a most satisfactory manner, proving himself possessed of qualities especially fitting him for the duties of the office. January 15 was fixed as the date for formal transference of the office to Mr. Helme.

DOOLITTLE QUITS BOARD OF FOOD AND DRUG INSPECTION.

IT IS announced from Washington, D. C., that Dr. R. E. Doolittle of the Board of Food and Drug Inspection, who, between the time of the resignation of Dr. Wiley and the recent appointment of Dr. Alsberg as Chief of the Bureau of Chemistry, was acting chief of that bureau, has resigned his position in Washington. Dr. Doolittle, it is stated, will return to New York to resume his position as head of the Department of Agriculture laboratory there. It was from the New York position that he was taken to fill the vacancy caused by the resignation of Solicitor George P. McCabe.

Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry has filled the vacancy on the Board of Food and Drug Inspection caused by the resignation of Dr. Doolittle, by the appointment of Dr. Willard D. Bigelow. Dr. Bigelow has been connected with the Bureau of Chemistry for many years as chief of the division of foods.

INAUGURATION OF PARCEL POST.

ON January 1, 1913, was inaugurated the first parcel post system of the United States post office department, that date marking an epoch to those who had for many years fought for the establishment of such service by our government. For a considerable period many European countries have had parcel post systems in operation, and foreign parcel post packages originating in countries with which the United States has a postal agreement have passed through the American mails without dispute. The first two weeks of trial of the new system seem to demonstrate that the people will make full use of it, for several hundred thousand parcel post packages were mailed during that period.

Numerous interests opposed the establishment of the system in this country and the experiment is being watched carefully as to its effect, but it is too early as yet to know what commercial lines will be benefited and which, if any, will suffer. Without doubt the present regulations will be found to contain defects, but it is hardly probable that the system will ever be abandoned. Whether good or bad in its effects the parcel post in the United States will certainly be a permanent fixture.

The express companies have already felt the effect of parcel post business and it is reported are preparing to announce new rates to meet this new competition.

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

INCREASING USE OF CORN FOODS.

AS AN article of food Indian corn, or maize, is one of the most extensively used grains in the world. During the past twenty years there has been wonderful progress made in corn culture in the United States, and land which formerly was regarded unfit for the growth of corn now yields a bountiful harvest of this cereal. For these improvements we are indebted to the modern scientific methods of farming, originated and encouraged by the United States Department of Agriculture, and the various state agricultural colleges and experiment stations.

A quarter of a century ago northern Iowa was usually considered the extreme northern limit for corn raising in the United States. Southern Minnesota yielded very little corn, while the Dakotas were for the most part given over to cattle raising, in such portions as were occupied by settlers at all. Now, however, all this is changed. The corn breeders set about to produce a variety of corn that would grow and mature in the short summer season before fall frosts should overtake the crop. In this they succeeded, and now corn is grown successfully in our own northern tier of states, and even as far north as Manitoba.

Corn that thrives in southern Illinois, for instance, is of too slow growth for the northern latitudes of this country, while the varieties that yield well in the north may be of too quick growth to give the best results in more southern sections. Good farmers of the present day are fully informed as to these facts and realize well the importance of planting corn suited to the particular latitude in which they live.

The corn crop of the United States is enormous, but there is not the slightest doubt but that we will have still larger yields than are now being garnered, for corn culture is being steadily extended and in many instances other crops are giving way to this great cereal. More and more are we eating corn products, being no longer restricted to those dishes which are made of coal meal.

Originally corn meal constituted the principal corn food product and porridge (or "mush," as the Pennsylvanians called it), corn cakes and johnnycake were, perhaps, the three principal dishes made by the ordinary family from the corn meal.

In Ireland corn meal porridge was for so long a time an important article of the dietary of the people that it became almost a National dish, and is a food still generally found on the tables of the farmers and laboring classes of that country.

When America was first discovered it was found that the Indians used great quantities of corn, roasting it in the ear when fresh and making a meal from the ripened grains. Indeed, with the Indians this crop was of such importance that the green corn season was ushered in with a festival.

The Puritans, when they settled in New England, became at once free users of corn, and their descendants to the present day have a preference for corn meal dishes. In the Southern states a favorite corn meal delicacy is the well-known corn pones.

We of the present day have an "embarrassment of riches" almost when considering corn food products. We still use corn meal largely, but we also are able to make many variations of corn product eatables, food manufacturers having discovered ways of preparing this cereal that are at once exceedingly palatable and easy of preparation for service on our tables. The immense demand that has been built up for this class of products is sufficient proof that they are very acceptable to all classes of people, for their consumption is universal and not confined to nationality, class or geographical limits.

In days of yore yellow varieties of corn were considered the grain par excellence from which to manufacture meal. In the manufacture of the various prepared breakfast foods from corn it is now generally conceded that the white varieties are of the finer texture and have the better flavor, so the very highest class of these products is made from white corn.

The practical elimination of the human hand, so far as touch is concerned, has been accomplished in corn food factories, as is the case in so many other food manufacturing establishments, and all of the work in preparing the cereal is carried on by the use of ingeniously contrived machinery. The finished product goes into sanitary cartons, and the cooked and toasted corn reaches the table free from extraneous matter, germs or anything injurious to health.



"Toasting ovens are large and roomy."

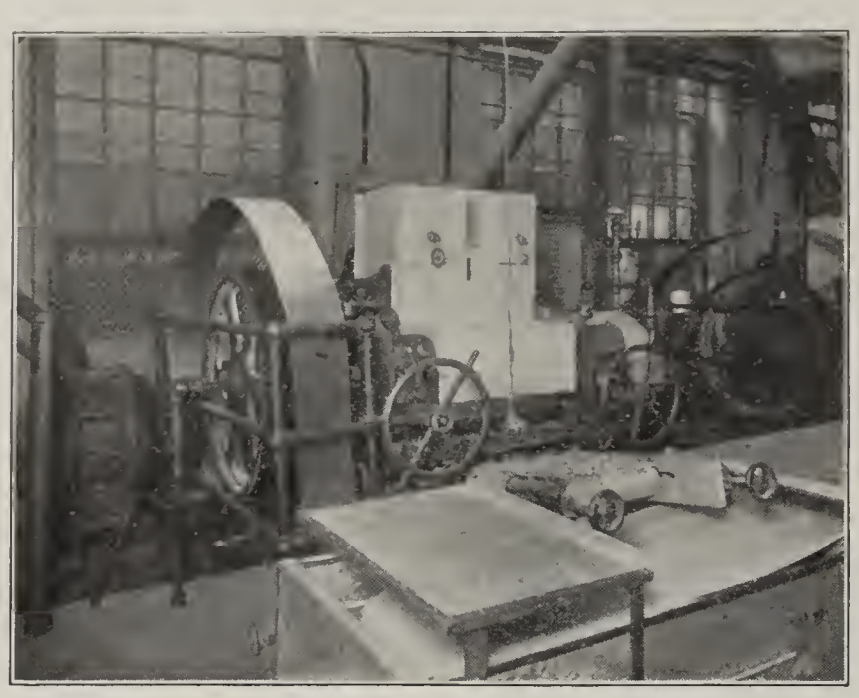
On general principles it may be said that the home housekeeper is in many ways vastly the gainer for being able to purchase cooked or partially cooked foods in original containers, for it relieves her of so much work and trouble, and also frequently saves a large part of her fuel bill, at the same time better results being achieved.

Many articles of food require long cooking and at high temperatures which are impossible to attain with the ordinary cook stove or oven apparatus. In the case of the preparation of corn food products in the factory it is interesting to know just the process by which the results are achieved, for it is apparent to anyone who gives it the least thought that there must be followed a process quite impossible to the home housewife in order to make the light, delicious flakes, beautifully and evenly browned and thoroughly cooked which we purchased at the stores prepared for serving.

In the first place, as noted above, a first grade of white corn is selected from which to manufacture the food. The outer covering of the grains and the little germ at the point are removed, the product which remains being termed "grits." These grits are passed over an apparatus which removes all corn flour and fine grits allowing only pieces of uniform size and perfect cleanliness to pass on to the ovens for cooking. The grits are deposited in the big cooking pans and after being mixed with the required flavorings the filled pans are wheeled into the immense ovens and the grain is subjected to steam which scientifically cooks the product. The corn remains in the ovens for about three hours under a temperature of 350 degrees.

After cooking is accomplished the product is screened and shaken down into automatic driers, after which it is sent to the coolers. When cooled the grits are conveyed to the flake mills. These contain big steel rolls about two feet long and

a foot and a half in diameter, and weighing over a ton. The grits are subjected to a pressure of several tons, and when we know this it is easy to understand why the flakes are so thin. The next process is that of toasting and great precautions are taken to give the product an even color. When emerging from the flake mill the flakes are from two to three inches long, and are broken in the toasting process. The toasting ovens are as large as a big room in one large factory these ovens being over thirty feet long, about the same



"When cold the grits are conveyed to the flake mills."

in depth and seven feet wide. The flakes are carried on belts back and forth through the oven and come out of a beautiful golden color ready to be packed into the packages in which they are sold to the housekeeper.

Another corn food product that is attaining great importance and is recognized as an economical and healthful food is corn syrup. This is a comparatively new manufacture and is finding favor among a large number of people who have been accustomed to using cane syrup, which latter is more expensive than the corn syrup. There is a limit to the amount



"The filled pans are wheeled into an immense oven."

of cane syrup which can be manufactured in this country because the area in the United States which successfully grows cane is limited to a small acreage in portions of the South. On the other hand the manufacturer of corn syrup has an almost unlimited amount of raw material to draw from, and naturally can produce at a much lower cost than is necessary in the manufacture of cane syrup. The quality of the corn syrup is excellent, and it is being used by a large number of people who are confronted with that vexatious problem of the high cost of living.

The cosideration of corn as a human food would not be complete did it not include mention of canned corn. In the days of a generation ago sweet corn was quite generally dried in the open air for future use. The corn was boiled on the cob, then the kernels cut from the cob, spread out thinly in pans or on boards covered with cloth and put in the sun to dry. This dried corn has been entirely superseded in the present day by canned corn. The amount of corn put up in cans in the United States in a single year is from 12,000,000 to 15,000,000 cases, and each case contains two dozen ordinary sized cans such as are commercially designated as No. 2.

In common with other kinds of canned fruits and vegetables canned corn is wholesome and worthy of increasing use. There are innumerable ways in which it can be utilized in culinary art and is a food product which can be consumed with confidence as to its purity and the sanitary conditions under which it was packed.

TO CRACK PECANS.

The pecan is one of the most difficult nuts from which to extract the meats whole and the following directions from a bulletin of the Alabama State Agricultural Department may help some of our readers to accomplish the feat successfully.

For table use the pecan is readily cracked and the kernels extracted with the use of the common two handled cracker which can be secured at the stores for 25 or 30 cents apiece. By grasping the pecan firmly in the hand and crunching down on the ends of the pecan snip off these ends first. Then place the nut longitudinally in the cracker and just press sufficiently to crack the shell. Then turn the nut and crack it once more. When this is practiced a few times there will be little difficulty in removing the kernels either whole or in halves. For candies, cake, etc., the housewife will find this method a great time saver. In snipping off the ends care should be taken not to endeavor to remove too much shell as in a well filled nut the ends of the kernel will be broken, spoiling the appearance of them. It is better to take a little time and not try to get into the tempting kernel too quickly. Cracking the nuts in the hands or placing them in the cracker either sidewise or lengthwise generally results in picking out irregular shaped pieces which taste just as good but are unfit for the candies.

There are numerous devices for extracting the kernels of pecans, one of which is a small vise with cup shaped caps. The pressure on the nut generally splits the shell in the center and the two halves are pulled apart. With some varieties the device works well.

UNIVERSAL COOKING AND FOOD EXPOSITION.

Mr. John L. Griffiths, consul general of the United States at London, writes for the Consular Reports a short review of a Universal Cooking and Food Exhibition which was held recently in London and attracted a great deal of attention. The consul says that demonstrations were given each day by Continental experts in foreign household cooking.

The feature which distinguished the exhibition from all those previously held was the effort to give a practical demonstration of the low cost at which nutritious food, properly prepared, could be placed on the workingman's table. It was shown, for example, that a good soup for 50 people could be obtained for 58 cents, German pie, for 50 people, for $1.09, and many other nourishing dishes were exhibited which were made from what, in the ordinary household, is thrown away as scraps or waste through ignorance of how it can be utilized.

Several examples were given of a dinner for seven persons costing 24 to 32 cents. One of these dinners consisted of savory baked batter, bread, haricot beans and gravy, boiled rice and currants (cost about 24 cents); another of baked lentil savory, green peas and bean gravy, bread, milk pudding and stewed fruit (cost about 26 cents); a third of baked cheese and potato pie, bread, green peas and bean gravy, bread and fruit pudding (cost about 28 cents); while a fourth consisted of meat and potato hash, bread, haricot beans and gravy, milk pudding, and stewed fruit (cost about 32 cents).

During the exhibition public competitions were given by cooks employed in the army, the navy and the mercantile marine, and there were demonstrations of the cooking of bananas in a variety of palatable ways.

In the world's production of coffee Brazil holds pre-eminent place. Exports of coffee from that country to other parts of the world in 1909 amounted to 2,250,000,000 pounds.

MUTTON AN ECONOMICAL MEAT.

WITH so much discussion as to how housewives can reduce their food bills it is interesting to note that Mr. William T. Bigalow, president of the Chicago Butchers and Grocers' Association, strongly advises the more extensive use of mutton, a meat that sells cheaper than the better cuts of beef and is highly nutritious and palatable.

In a recent statement for the benefit of perplexed housewives who appealed to him for advice on how to supply their tables with meats at less expense Mr. Bigalow said:

"The wise housekeeper makes a study of marketing and of prices and qualities of food products. She knows how to buy and how to make things go far. Now that we hear so much of the price of beef and the difficulty poor families experience in buying the meats desired for the money they have to expend, it is well to consider the subject of economy of meats as of primary importance. Many housekeepers who have a large meat bill can assign the cause to expensive taste, or lack of knowledge concerning how to buy or to make things go far.

"It is folly for people to think that only the choice cuts of meat are worth eating; such cuts comprise only a small portion of a dressed beef. American women never have become accustomed to using cheaper cuts, but on the other hand foreign housekeepers long have realized their nutritive value and economy and use them extensively.

"I have strongly advised the use of mutton to those women who complain of the high price of beef. Mutton has a nutritive value that cannot be surpassed, and that it is economical no one familiar with market prices can deny. The English people use a great deal of mutton and the English mutton stew is famous."

Mrs. J. D. Wyse, of the Chicago School of Domestic Arts and Sciences, heartily seconds Mr. Bigalow's statements and says:

"At the present time, when there is so much talk about the price of beef, it is surprising that the masses are not using mutton more. Those who have made a scientific study of meats have a great respect for mutton. It is a very healthful and wholesome meat. Some of the most delightful meat dishes I know of are made of mutton. Not long ago I paid 30 cents for tenderloin of beef and 18 cents for mutton. That difference is well worth saving to the average housekeeper.

"American housekeepers need to develop the thrift of their German sisters. In fact, the example of the housewives of most foreign nationalities could be followed by them to advantage. These foreign women not only use the cheaper meats and like them but they carry out a system of economy and of utilizing everything which saves a lot during the month.

"The working family needs meat and the wives of the workingmen should learn the recipes of the many savory dishes that can be made of mutton and the cheaper beef cuts. For people who are active the nutritive value of these meats is of great value."

"If the housekeeper wants to start a system of economy," said Mrs. Ida May Price, a teacher of domestic economy, "she can begin with saving on her meat bill. Mutton is a cheap meat and highly desirable. Its nutritive value is great and many delectable dishes can be made of it. I am always extolling the value of mutton and the cheaper cuts of meat. Some day our housekeepers will learn to use these meats as the women of foreign countries do."

From still another source we find an advocate of mutton as a low priced and desirable meat. Mr. S. W. McClure, secretary of the National Wool Growers' Association, recently wrote a letter to the mayor of Peoria, Ill., in which he said:

"At the present time beef and pork are retailing at high prices, due to a temporary shortage of cattle and hogs. However, mutton and lamb are selling at low prices, due to an oversupply of sheep, which will continue for some time. If the attention of your people could be attracted to mutton, relief from oppressive prices would be immediately forthcoming. While mutton is low in price, it is fully equal to beef and pork in its nutritive value, and is superior to either of them in digestibility and health-building qualities. The sheep is the only meat producing animal that does not suffer from tuberculosis. This fact is proven by reports of the United States Bureau of Animal Industry."

Jane Eddington, a well known writer on cookery subjects, recently visited Edinburgh, Scotland, and took occasion to get a few pointers on Scotch mutton for the benefit of American readers. In her published letter she said:

"Many people believe that the Scotch cook their mutton better than any other people in the world, and this is saying a good deal. The mutton cult is growing in our own country for economic reasons, and I think that here is the place for me to get some information that will help the cause along. For general statements about mutton I must go to a new friend's notebook, which says:

"'Mutton to be in perfection should be four to five years old, but mutton of this age is rarely met with now, as sheep are constantly killed under two years. Good mutton should be of clear, dark red color, the fat firm and white and not too much of it. The meat should be firm and elastic. If the fat is yellow and lean, flabby and damp, the meat is not in good condition.

"'The quality of mutton greatly depends upon the pasture upon which it has been fed. Black faced mountain mutton is considered the best.

"'For roasting, mutton can hardly be too long hung, the length of time depends upon the weather. In cold, dry weather, in an airy, well kept larder, mutton may be hung from fourteen to twenty-one days. In wet weather it would not keep half that time.

"'Mutton is seasonable all the year around. It is best from September to April. Suitable joints for roasting are saddle, leg, shoulder, loin (good for stuffing and rolling).

"'In an average sized mutton the leg weighs from 5 to 9 pounds, the shoulder from 5 to 7 pounds, the breast (for stewing) 3 pounds, the best end of the neck (for cutlets and stews) 4 pounds, the scrag 3 pounds, loin 6 pounds, saddle 11 to 12 pounds. In small Welsh mutton the weight should be less.'"

The Scotch recipe for boiled mutton and sauce is given as follows:

BOILED MUTTON.

Time, an hour and a half. Have the pan three-fourths full of boiling water, to which salt has been added. Prepare the meat (1) by wiping it with a cold wet cloth; (2) if the skin be discolored scrape with a knife. Good meat should be of a good red color, elastic to the touch, and have a fresh smell, and it must not be wet and slimy. (This is why so many European peoples have a prejudice against frozen American meat. They do not know how to thaw it and have it anything but wet and slimy. Only the big places seem to be able to do this, and they are not always successful.) In mutton the fat should be white and hard, in beef cream colored. In beef the meat should be well intergrained with fat. Time allowed for boiling, twenty minutes per pound and twenty minutes besides for all joints over three pounds; under three pounds, from one to one hour and a half. Plunge the meat outside down into boiling water and allow it to boil for five minutes. This is to harden the albumen on the outside of the meat and to form a casing to keep in juices. After that place the lid on the pan, skimming if necessary, then simmer for the rest of the time. Prepare a carrot and turnip, and put them to boil with the meat, if a small piece, but if large put the vegetables in later on. Cut the carrot in smaller sizes than the turnip. Prepare an onion and add it.

SAUCE FOR MUTTON.

Time, ten minutes. One ounce and a half of dripping (piece size of an egg), one ounce and a half of flour (one tablespoon and a half), one pint of mutton liquor, milk if liked, chopped parsley. Prepare the parsley by washing, pick off the heads, and keep the stems for flavoring the soups and stock. Wring the water from it and squeeze in a corner of a towel; place on corner of a board and chop finely. (I have watched the most experienced people chop parsley, and they do not chop straight down, but move the knife with a see-saw motion, now one end cutting and now the other. It is not such an easy thing to chop it nicely.) Gather into a spoon and collect everything needed on a plate. Melt some dripping, to which add flour, a little of the mutton liquor, and stir vigorously with the back of a wooden spoon, getting all the lumps out. Add more liquid, and repeat until the sauce is of the desired consistency. If the sauce is still lumpy remove it from the fire and beat well (five to seven minutes required for boiling); add milk, if desired. The sauce should be thick enough to coat the back of a spoon. Add the parsley last and cook it for a few seconds. Instead of parsley, two or three onions might have been cooked with the mutton, and when tender taken out, chopped finely, and added to the sauce. Capers might have been chopped up and added, with a little vinegar, one tablespoon of capers to one pint of sauce.

To dish mutton, lift it with a fork and spoon, lay on the center of an ashet (plate or platter), and pour the sauce over the mutton. If the sauce gets too thick with standing, add a little more liquor or milk. Drain the vegetables and arrange them neatly at either end of the dish, or in separate dishes if preferred. Dish the onion also, or leave it out, a matter of taste only. Keep the liquor for stock.

SOME DELICIOUS WAYS WITH OYSTERS.

By Margaret Wilson.

TO most people oysters are delicious and appetizing, and they also possess nutritive qualities that must not be overlooked. For thousands of years this bilvalve has delighted the epicures, and while at the present time it is of general consumption by rich and poor, there are many households that do not serve oyster dishes as frequently as they might profitably.

Among the many scientists who have made a study of the bacteriological and chemical conditions of oysters, perhaps none has done so more thoroughly than Dr. Julius Nelson, professor of biology, Rutgers College, New Brunswick, N. J., and biologist of New Jersey State Agricultural College Experiment Station. Concerning oysters, Dr. Nelson recently wrote:

"Oysters are a good food. They come nearer in composition to cow's milk than do most other meats, as all the four kinds of nutrients needed are present in good degree. They have a larger excess of the flesh building substance relative to the other constituents than milk, so we 'balance the ration' by addition of starchy food and fats when eating oysters, thus securing a good meal at a cost that compares favorably with that when other meats are chosen. Oysters have some special points of advantage, among which are the following:

"(1) The sea salts that they contain are useful in regulating and stimulating nutritional processes.

"(2) They are the tenderest of meats and easily digestible, and suitable even for persons of sedentary habits.

"(3) In addition to being easily safeguarded against accidental contamination, there is no oyster parasite known that will live in the human system.

"(4) Oysters are clean feeders; they are practically confined to a selection of the beautiful little plants known as diatoms. I consider oysters a valuable and wholesome food."



Oyster Pie.

The oyster, being so largely composed of water, its density is but little more than that of water. The decomposition which sooner or later overtakes all flesh, fish, fowl and game products, and terminates their usefulness as food, is attended with an evolution of gas. A very small quantity of this gas is sufficient to overcome the difference of density between an oyster and fresh water, and the former will float on the surface of the latter. This is why the record is bare, or nearly so, of cases of ptomaine poisoning caused by the shucked oyster. The dealer sees the bad ones floating and throws them out. Here is the way to detect and get rid of bad oysters: Drain off the liquor, place them in cool, fresh water of sufficient quantity, then stir gently and give everyone that wants to float a chance to rise to the surface. After all have settled down reject the floaters.

Most of the oyster propagation or oyster farming in the United States is now carried on in the great open bodies of water where they are constantly swept by currents of salt sea water, and thus are produced pure and delicious oysters.

The supply of wild oysters from the creeks and estuaries where they formerly grew have long since become depleted, and even from rivers and harbors their use is mostly discontinued. Oyster grounds are now in almost every case given bacteriological examination by the state authorities or experts employed by the states, and when any of the beds are found not up to standard the oysters taken from them are not allowed to be marketed. Both waters and oysters are examined so the consumer should be able to feel security in eating oysters to know that they are pure and in good condition.

A brief description of deep water oyster culture from an authoritative source, Mr. Henry C. Rowe, president of the Oyster Growers' and Dealers' Association of North America, is given as follows:

"Let us suppose that we have acquired a good title to a thousand acres of ground suitable for the cultivation of oysters and over which the water is not too salty or too fresh, too shallow or too deep. The first step is to buoy it out, so that its boundaries may be distinctly marked, and that we may avoid planting the grounds of others.

"After the ground is buoyed we would place 30,000 bushels of adult oysters on it to furnish the eggs and milt to stock this thousand acres with oysters. A single female oyster produces several millions of eggs yearly, which, during the warmest weather, are expelled into the water, where they float hither and thither in the tides and currents. Doubtless but a small proportion are ever fertilized. Vast quantities fail to come into contact with the fertilizing element, which also floats and swims in the water. Millions are devoured by animalculae, and still more are destroyed by sudden falls in temperature in the surface of the water, caused by cold rains, at this critical period of the existence of the oyster.

"The little oysters float about for several days, many of them on or near the surface of the water; after this roving existence, during which they are subject to many dangers, the survivors reach what is called the 'attaching stage,' when they are ready to adhere to some hard, clean substance and commence a more settled existence.

"The shells commence to form and the specific gravity of the shells assists in carrying the oysters to the bottom. The greater proportion of the embryo oysters fall upon mud or fine sand and are destroyed. It is for this reason that we furnish hard, clean material to which they may attach themselves. After having planted our adult oysters to serve as parents for the new crop, our next step is to plant upon the same ground in the month of July, from ten to twenty times as many bushels of clean oyster shells or other hard, clean substance, such as broken stones, tiles, etc.

"Upon this 1,000 acres we will suppose that we plant 500,000 bushels of shells, and by the end of July, in the climate of Connecticut, begin to look with our magnifying glasses for the first appearance of the young oysters, which we shall hope have attached to the shells or other 'cultch,' which we have provided for them.

"In some favorable years the attachment, or 'set,' as it is called, is very plentiful, and most of the shells which are planted are well covered with the little oysters. In other years the 'set' is very light, or an entire failure.

"In case the season is unfavorable and there is not an adequate quantity of the young set upon the shells, it will be necessary to dredge up and replant the ground another year.

"When oysters are one or two years old, if there is an unusually large crop, it is necessary to catch a portion of them and transplant them to other grounds, so that they may have room to grow without crowding. If crowded they do not grow in good shape. Those experienced in the industry sometimes transplant large quantities of oysters from one kind of ground to another, for the purpose of improving their shape and making them fatter when marketed.

"But the dangers to the life of the little oysters are by no means over when the attachment occurs, especially while they are still small. Vast quantities are destroyed by starfish, drills, storms, mud, sand worms, etc. The starfish has been the oyster's greatest enemy, but the drill is becoming even more destructive. The little starfish attach temporarily to the shells at about the same time that the young oysters do, and begin immediately to prey upon them. As they become older the starfish move in armies, as the grasshoppers and locusts do on land; an army of them will destroy thousands of bushels of oysters in a few days."

The limits of this article do not permit the description of the methods used in destroying the enemies of the oyster, such as the tangles or mops for starfish, the catching of drills and periwinkles, nor of the destruction of oyster crops occasioned by great storms.

For catching oysters from the farms, steamers are now almost wholly employed. Previous to the deep water cultivation, oysters had been gathered by hand power, with rakes, tongs and dredges.

There are a large number of ways in which oysters may be prepared for the table and we append here a few that are recommended to give delicious results:

OYSTER SOUFFLE.

Take 12 oysters, add a little water and bring to a boil. Then remove from the fire and chop rather coarsely. Melt two tablespoonfuls of butter in a saucepan, add one tablespoonful of flour and stir over the fire for a minute; add three-fourths of a cupful of hot milk, stir well, season with salt and red pepper, cook for ten minutes and strain. Now add the chopped oysters, reheat and stir in very gradually two yolks of eggs; stir over the fire until the eggs begin to set. Remove the saucepan from the fire, beat up three whites of eggs to a stiff froth, and mix gently with the other ingredients. Fill ramekins or other small fireproof dishes with this preparation, sprinkle a few fried breadcrumbs on top of each and a little melted butter. Then bake in a moderate oven until browned, which should require about twelve minutes.

SPINDLED OYSTERS.

For two dozen large oysters have two dozen thin slices of bacon and one-half dozen thin slices of crisp toast. Have ready one-half dozen thin steel skewers. Fill the skewers with alternate slices of bacon and oysters, running the skewer through the eye of the oyster and threading the bacon by one corner. Do not crowd. Lay the skewers across a baking pan and cook in a quick oven, or under the gas for five minutes. Lay each spindle with its contents undisturbed on a slice of toast, pour the drip from the pan over them and serve at once.

OYSTER PIE.

Take one pint of oysters. Line a baking dish with paste and put in it the oysters, together with a small lump of butter and a teaspoonful of finely chopped bacon. Season with salt and pepper and put on a top crust and bake three-quarters of an hour.

FRIED OYSTERS.

There are numerous variations of the fried oyster. The simplest way is to roll in cracker crumbs seasoned with salt and pepper, let stand a half hour, then roll again in meal and fry brown in deep olive oil, lard or butter. The Philadelphia fry is made by dipping large oysters first in a rich mayonnaise dressing, then in cracker crumbs, then a second time in the dressing and again in cracker crumbs, and frying in very hot fat.

CURRIED OYSTERS.

Scald in one pint of water and drain one quart of oysters, dry thoroughly and set aside in a shallow dish. Mix together one-quarter pound of butter, one teaspoonful of cornstarch, one tablespoonful of curry powder, one gill of oyster water, one teaspoonful of lemon juice and one-half teaspoonful tabasco sauce. Heat slowly in a saucepan and add gradually one gill of milk. Stir hard and add salt and cayenne. When smooth add the oysters and cook for five minutes.

DEVILED OYSTERS.

Take one pint of oysters, add a little water and boil until plump. Remove tough muscles from the oysters and reserve the liquid in which the oysters are boiled. Melt three tablespoonfuls of butter, add three tablespoonfuls of flour and stir until well blended; then pour on gradually, while stirring constantly, sufficient of the oyster liquid to make one cupful. Bring to the boiling point and season with one-half teaspoonful of salt, one-fourth teaspoonful of mustard, a few grains of cayenne and one teaspoonful of lemon juice. Add the oysters and as soon as heated add the yolk of one egg and one teaspoonful of finely chopped parsley.

ANCHOVY SAUCE.

Anchovy sauce is a fish product and is prepared by first boning and drying the fish, then pounding and rubbing it through a sieve. This is to remove any pieces of bone or other extraneous substance of a gritty nature. After coming from the sieve the product is seasoned with salt and pepper. Anchovy sauce is used as a relish and was at one time the basis of old Roman dishes.

MORE BEANS AND LESS MEAT.

The constant effort many housewives are making to supply their tables with food less expensive than meat, and which will at the same time supply the necessary quota of nutritive qualities has at least one good result other than the primary one aimed at, and that is the attainment of a much larger variety of diet.

One bright housekeeper urges beans as a splendid variation from meat. "We generally have meat twice a week," she writes, "once as a basis for soup and again as a medium-priced pot roast for Sunday dinner. For other meals we use cheese with crackers, macaroni and spaghetti with cheese and either milk or tomato sauce, and many vegetables, the chief of these being the nutritious bean. These healthful vegetables are to be had in such variety, are so inexpensive and lend themselves so readily to the preparation of different dishes that the wonder grows that they are not more generally used.

"There are navies and marrowfats, kidneys and limas, not to mention lentils, which belong to the same group, and the canned string beans that one may put up at home. Bought by the ten-pound sack or by the peck the price for any of the dry varieties is very moderate.

"Cold stewed beans, either white or brown, when added to minced onion and sweet peppers and tastily dressed, make an excellent salad.

"Onions seem in some way to supplement beans. I have found that an onion sliced thin and added when reheating beans of any kind freshens and improves them.

"These are all tested recipes, but none are so delicious as my baked beans, which we have as regularly as Saturday night comes. These should be soaked over night, and in the morning put to parboil in fresh water. Put in a bean pot with a piece of bacon which has the rind scored, a chopped onion, two tablespoons of molasses, a dash of cayenne, and plenty of salt. Cover with water and bake slowly, with the lid on for six or seven hours. One hour before serving add a fresh onion and leave off the lid. The secret of good baked beans is in leaving them undisturbed except that they should always have liquor to cover them or nearly so.

"We American mothers might well teach our daughters to emulate the Mexican maidens in this particular, as she who can serve the deepest liquor on her 'ofa of frijoles' when they are tender, without having stirred them or broken their skins, is sought as the best wife."

JAPANESE CRAB MEAT.

We have lately seen a number of articles calling attention to Japanese crab meat and its growing popularity. This is a canned product, is very delicious and very rich, and is recommended as a most desirable article of food to have in domestic stock, to draw upon on occasions of sudden emergency or when one has difficulty in deciding upon what to have for luncheon or breakfast.

The crab meat when taken from the can and examined appears to be small pieces, from which one would conclude that the Japanese crab is considerably larger than any of the crabs common to the Atlantic coast. In essential details the Japanese crab meat does not differ from that of our own soft-shell variety, having much the same flavor. It is particularly delicious when served from the chafing dish, in the same manner as Welsh rarebit, but it must be remembered that the meat is extremely rich, and is accordingly not to be eaten in great quantity at any meal.

NOT TROUBLED WITH HIGH COST OF LIVING.

Raymond Prior Sanford, a freshman in the College of Agriculture of Cornell University, lived for more than six months on food which has cost him not more than an average of 85 cents a week. His present diet consists of skimmed milk at 2 cents a quart, buttermilk at 3 cents a quart, stale bread 3 cents a loaf, peanut butter, 10 pounds for $1.50; raisins, 3 pounds for 25 cents; lentils, 10 cents a pound, raw cabbages, onions, peppers, rice, oatmeal and what apples he can forage from the agricultural farms of the university. In 28 days he gained 4 pounds.—*The Spice Mill.*

A Klamath, Wash., report states that after seven years experimenting, Carl Dietsch, of that vicinity, has succeeded in producing a seedless prune. The fruit is of excellent flavor and about two inches long and three-fourths inch in diameter.

ARSENIC NATURAL IN MANY FOODS.

By Dr. A. P. Bryant, Clinton, Iowa.

Are we striving to attain an impossible degree of purity in our food supply, and set a standard which Mother Nature herself cannot attain?

Benzoic and salicylic acids are found in nature and now come two French scientists who tell us that arsenic is almost universally present in vegetables and fruits. Astruc and Jadin have examined with painstaking care a large number of vegetable food materials and have found traces of arsenic varying from .03 to .26 parts per million.

The results are summarized below, the values being expressed in milligrams per kilo, or what is the same thing, parts per million:

Amount of Arsenic in Food Materials.

Material.	Milligrams Arsenic Per Kilo.
Mushrooms	0.06
Black Truffles	0.20
Rice	0.07
Red Kidney Beans	0.25
White Kidney Beans	0.10
Dried Peas	0.26
Lentils	0.10
Artichokes	0.10
Salsify	0.07
Chicory	0.10
Lettuce	0.23
Head Salad	0.09
Spinach	0.09
Pumpkin	0.09
Beans, Fresh	0.20
Little Peas	0.04
Celery	0.20
Carrots	0.05
Radishes	0.10
Water Cress	0.12
Cauliflower	0.08
Asparagus Tips	0.10
Leeks	0.03
Walnuts	0.13
Hazel Nuts	0.11
Almonds	0.25
Dates	0.12
Chestnuts	0.05
Apples	0.05
Peas	0.07
Oranges	0.11
Mandarins	0.12
Pineapple	0.08
Bananas	0.06

It is evident from the above values that we are all arsenic eaters and it may be that arsenic is an absolute essential to life, for it seems to be present as a universal constituent of the thyroid gland of various animals as shown by Gautier, another French scientist. He found that in man arsenic might be present to the extent of 30 parts per million in this gland and to a less amount in the thyroid gland of animals used for flesh food, as for example, the ox, sheep and hog.

The presence of arsenic in vegetable materials suggest the possibility of its being found in muscular tissue, vital organs, etc., and perhaps thus rendering uncertain proofs of arsenic poisoning. Gautier found, however, that no arsenic could be detected in muscular tissue, the stomach, kidney, spleen and intestinal walls of man or animals. A faint trace was found in milk, bone and in solid excreta, but in no case over .01 part per million.

It would be interesting if similar investigations could be carried on in this country in order to learn whether conformatory results would be obtained, but meanwhile it will hardly be necessary for anyone to forego the pleasure of eating for fear of arsenic poisoning by nature's own hand, and it may be some comfort to know that it would require some twenty-five pounds per day of the food materials containing the largest amount of arsenic to yield the smallest daily medicinal dose of arsenic.

AFTER WATERED OYSTERS.

The Michigan Dairy and Food Department has issued an order to its force of inspectors to visit all places where oysters are sold and confiscate all watered stock.

ELECTRICITY AND CLEAN MILK.

Probably in no department of science has there been greater progress during the last thirty years than in the application of electricity. Commerce has been practically revolutionized by electricity. Following the telegraph there came electric lighting, then telephone, then the application of electricity in transmission of power, then the use of electricity in the separation of metals, then wireless telegraphy, and now we are told they are today sending wireless telephone messages in Europe.

Through the use of electricity it has been possible to harness up the vast water powers of the country and transmit their power hundreds of miles to centers of industry for consumption.

Scientists are now working upon plans whereby instead of transporting coal for light and fuel purposes it will be converted into electric energy in the mines and transported throughout the country on cables for general use.

The value of electricity in sustaining life and in the destruction of certain elements of disease has been generally recognized among scientists for years. It has also been known to scientists that when certain substances are subjected to proper electric shocks, causing what is called electrolysis, fluids are produced which are possessed of remarkable power to destroy germs of disease.

Recently an influential concern of Wisconsin began a systematic campaign for the improvement of sanitary conditions on farms and in dairies, bringing into their work the use of electricity in the production of a clean, colorless, nonpoisonous fluid resembling water in its appearance, which they maintain is possessed of a germ destroying efficiency many times greater than carbolic acid and other poisons.

Because of its great cleanliness and its superior powers for purification and its harmlessness, this clean, odorless fluid, is declared to be wonderfully well adapted for general use as a disinfectant, sterilizer and purifier for all dairy utensils. It is used in the cow stables for sterilizing the cows' udders and flanks, washing the hands of the workmen and a large variety of similar uses. It is only necessary to use a very small quantity of this fluid to render a large quantity of water effective for purifying and sterilizing purposes. It is therefore, very cheap, costing, it is said, about five cents to sterilize an entire delivery wagon full of milk bottles, and costing the farmer less than two cents to treat thoroughly, the udders, flanks and tails of 25 cows for prevention of contamination of the milk. The fluid is said also to be very useful as a preventive of the diseases common in dairy herds.

WANTS WRAPPED BREAD IN WASHINGTON.

Information comes from Washington, D. C., to the effect that Senator McCumber has introduced into the United States senate and had referred to the senate committee for the District of Columbia, a bill providing for the sanitary wrapping of bread in the city of Washington. The bill is unique in its features and provides as follows:

"That it shall be unlawful for any person, firm or corporation engaged in the manufacture or baking of bread to be sold for food in the District of Columbia to remove such bread from the building in which it is baked or manufactured before inclosing it in a suitable sanitary wrapper or package that will protect it from dust, insects or other contamination.

"That it shall be unlawful for any dealer or other person to sell, deliver or cause to be delivered in the District of Columbia any bread intended to be used as food unless the same is inclosed in a suitable sanitary wrapper or package that will protect it from dust, insects or other contamination, and any person who shall violate the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof for each offense shall be fined not to exceed $100 or imprisoned not to exceed three months, or both, in the discretion of the court."

The American consul at Port Antonio, Jamaica, reports that the 1912 Jamaican banana crop is 1,000,000 bunches short. It is not anticipated that this country will be obliged to curtail its banana consumption, however, for it is expected that amount of the fruit produced in the other West Indian islands and Central America will make up the deficiency in the Jamaican yield. The United States, it is stated, consumes five times as many bananas as any other single country.

The world's tea consumption has been estimated at about 700,000,000 pounds per year.

The Illinois State Food Commissioner's Thirteenth Annual Report

By HON. ALFRED H. JONES

1623 Manhattan Building, Chicago, Ill.

TO His Excellency, Charles S. Deneen, Governor of Illinois:

I have the honor to herewith submit this, my Thirteenth Annual Report, of the Illinois State Food Commission, for the year 1912, in compliance with that part of Section One of our new State Food Law, approved June 2, 1911, and in force July 1, 1911.

Changes in the Department.

As will be seen from the roster of the Illinois State Food Commission, on the second page of this report, few changes have been made during the past year in the membership of the State Food Department, as well as the State Stock Food Department, which is a bureau within the State Food Department.

For, under the new State Civil Service Law, all the employes of the Illinois State Food Commission are now under the regulation and control of the State Civil Service Commission as to their appointment, and all appointments are made after the applicant passes a civil service examination that is satisfactory to the commission and certified to the State Food Commission, and no appointment can be made except the applicant for a position passes the required examination under the rules and regulations of the Civil Service Commission.



HON. ALFRED H. JONES,
Illinois State Food Commissioner.

At a meeting of the National Association of State Food and Dairy Departments, which said association is composed of the officials of all the states, as well as the United States Food Department, held at New Orleans, Louisiana, in December, 1910, among other resolutions, the following was unanimously passed by said association:

"Resolved, That experience has shown that efficiency in food control officials increases with experience, and the people are entitled to have continuously, in connection with the enforcement of food control laws, the services of trained, experienced, administrative and technical men, and that food control work should be divorced from politics."

The substance of this resolution, as well as the spirit thereof, has been taken up by the legislatures of nearly every state in the Union, as well as the Congress of the United States, and same embodied into law, and now appointments are only made by application to the Civil Service Commission, and after passing a satisfactory examination for the position sought by the applicant, and after the Civil Service Commission certifies same to the State Food Department. This new regulation has proved very satisfactory, and more effective work can be accomplished and has placed the commission on a much higher plane than ever before.

Hearings and Prosecutions.

During the past year there have been taken by our inspectors over 6,607 samples and reported to the office of the State Food Department for the purpose of analysis, or to determine whether they were properly labeled, stamped or branded as the law requires, not taking into consideration the test made as to milk and dairy products; also the laboratory has had the analysis of food samples for the State Board of Control of the foods furnished to the various institutions of the state coming within the province of the Board of Control, and these foods have been analyzed and reports made of the same to the secretary of the State Board of Control as required by law. No account of these samples analyzed by the State Board of Control has been taken into account in the above report of analysis made by the chemists of the State Food Department, but only of those made by our chemists of the samples taken by our food inspectors.

I call attention to this for the reason that the law requires that this work shall be done for the State Board of Control by our commission, and a report made to the State Board of Control, while the report of all samples taken shall be included in this report to your Excellency.

Of these samples analyzed, 3,157 were found to be pure, or to meet the requirements of the law, and 1,636 were found to be adulterated or mislabeled, and illegal, and consequently in violation of the food laws.

Under Section 40 of our State Food Law preliminary hearings are provided for when it appears from the examination or analysis of the sample that the provisions of the law had been violated by giving the party or parties offending a notice in writing to appear before the commission at the State Food Commissioner's office, 1623 Manhattan Building, Chicago, on a day fixed in the notice, together with a copy of the findings, and also by sending to the party whose name appears upon the label of the sample taken as manufacturer, jobber, or packer a similar notice.

The object of this provision of the law is to give the party or parties so notified of such charge an opportunity to be heard before the suit is brought against them, and after such hearing, if it appears there is probable cause of guilt, then such party or parties violating the law, whether dealer, manufacturer, jobber or packer, may be prosecuted for such violation.

Under Section 40 of our new food law, then, the persons or firms in whose possession were found the various articles of food offered for sale in violation of the law were summoned to hearings, and of the 1,189 hearings granted 942 cases were adjudged to be of a minor or technical character, such as could readily be cured by the use of labels conforming to the law's requirements or by the slight changing of the methods of manufacture or sale, and such cases were not prosecuted in the courts on the agreement of the parties summoned to make the required changes to conform to the law. In the remainder of the violations, namely, 247, suits were instituted, and of such suits 150 were terminated within the year and 97 are now pending in the various courts.

Legislation for the Commission.

Our present General Assembly has assisted the department very much in the way of needful legislation, and especially in passing a new Sanitary Food Law, which is "An Act to prevent the preparation, manufacture, packing, storing or dis-

tribution of food intended for sale, or sale of food under insanitary, unhealthful or unclean conditions or surroundings to create a sanitary inspection, to declare that such conditions shall constitute a nuisance, and to provide for the enforcement thereof."

A copy of this new Sanitary Law and the rulings made thereunder for the enforcement of same will be found in this report, under their proper title.

This law has been of incalculable value, as it has assisted the department in requiring the places where foods are manufactured and sold to be prepared and sold under sanitary conditions; also to require country slaughter houses, meat markets and other places where insanitary conditions formerly existed to clean up and put their places where these foods are manufactured, as well as the food itself, in a sanitary condition.

Heretofore many of the country slaughter houses, as well as places where meats were prepared and sold, were surrounded with flies, dust, and even dirt, and sometimes vermin, and it was hard for our inspectors to reach them and enforce the law, but now, under this new Sanitary Law, our inspectors can require them to clean up, put their places of business in a sanitary condition, or in case of refusal to close same up and thus put them out of business.

Since the passage of this law there has been a general cleaning up all over the state, not only by the country slaughter houses, meat markets, but in the grocery stores or places where foods are retailed and sold, as well as where they are prepared, manufactured and packed for sale.

Since the passage of the new Stock Food Law, requiring all stock foods to be labeled,

> First—Giving the net weight of the contents of the package, lot or parcel;
>
> Second—The name, brand or trade-mark;
>
> Third—The name and principal address of the manufacturer, or the person responsible for placing the commodity on the market;
>
> Fourth—The minimum per cent of crude protein, the minimum per cent of crude fat and the maximum per cent of crude fiber;
>
> Fifth—The specific name of each ingredient used in its manufacture;
>
> Sixth—If the feedstuff is sold in bulk, or if it is put up in packages belonging to the purchaser, the agent or dealer shall, upon request of the purchaser, furnish him with a certified statement described in this section,

there has been great improvement in all these concentrated stock foods on the markets of the state, for now we can more effectively regulate the manufacture and sale of them.

The food markets of the state are in better condition than they ever were before. More attention is being paid by the manufacturers and packers of the various foods of the state in their preparation and manufacture, the ingredients entering into same, and the sanitary conditions surrounding their manufacture better than ever before.

The same is true of the stock food markets of the state, as the manufacturers and packers of these foods are giving more attention to the law and are using more care in the preparation of the article or articles of food for market, as well as to see that it complies with the labeling laws of the state, consequently there is more nutrition and real value in these foods for the domestic animals of the state than at any former time.

Our present General Assembly, in addition to the passage of the new Sanitary Food Law and the revision of the State Stock Food Law, has assisted the department very much in the way of more adequate appropriation for additional help, for rents and apparatus for the laboratory, and in addition thereto has made many changes in the State Food Law of 1907 and 1909, and these changes have been very instrumental in assisting the department in carrying on the additional work under the new requirements.

I desire to call especial attention to the many changes made by our General Assembly in the revision of our new State Food Law. These changes will be found in added Sections 20-A and 39-A and amendments to Sections 1, 3, 4, 9, 10, 11, 12, 20, 21 and 40 thereof, and since this new revised State Food Law of July 1, 1911, went into force additional rulings, standards and requirements as to labels have been made and the same are published under a proper heading in this Annual Report, for the labeling of the various food articles of the state have been revised in harmony with the changes made in the law by our General Assembly, and the same are published under their proper title and made a part of this report.

Work of the Department.

During the past year more effective work has been accomplished by the department than any former year, for the reason that our General Assembly has made more adequate appropriations for carrying on the work of the department and has given the department additional help for carrying on its work, also revised our new State Food Law so as to meet the modern requirements, as well as our new State Stock Food Law, and in addition to this legislation has given the State a splendid new Food Sanitary Law, and with this assistance rendered the department we could require food to be not only properly prepared and labeled, but also to be prepared under sanitary conditions, and if they were not so prepared and labeled the department had the right of seizure and condemnation of the insanitary and unwholesome foods.

Many mooted questions have been settled pertaining to the various foods sold in the state, and among the more important was the matter of coloring oleomargarine in semblance of yellow butter. It was contended by the oleomargarine dealers of the state that the anti-color law, as to oleomargarine and butterine, was that oleomargarine could be colored; that the "anti-color law" was special legislation and, therefore, unconstitutional, and the oleomargarine interests carried a case up to the Supreme Court of our state. The court handed down a decision that this law was constitutional and that the legislature, under the police powers of the state, had the authority to pass the law. Notwithstanding this decision, much "moonshine oleomargarine," colored in imitation of butter, has been seized and the national food officials have taken a hand in assisting the state food officials in prosecuting these "moonshine dealers" and many of them have been given penitentiary sentences, and it is hoped that we can soon have the markets of the state rid of this moonshine product and the law properly enforced.

The whisky question is another very important question that has been settled as to the proper branding or labeling of whisky, so that in the future we can rid the markets of the state of a great deal of the bad liquors, wines and beer, for now the manufacturers, distillers and packers of these products will have to label the product to show what it is.

Another important question that has been settled is preservatives in foods, and the same has been settled along the lines laid down in our State Food Law.

Our State Food Law provides in Section 5 of Article VIII (defining adulteration) that formaldehyde, hydrofluorice acid, boric acid, salicylic acid and all compounds and derivatives thereof are declared unwholesome and injurious to health, and consequently shall not be used as ingredients in the composition of food products.

The State Food Department prior to 1909 had ruled that benzoate of soda, when used in quantities of one-tenth of one per cent, was injurious when used in any of the food products. This ruling was modified after the United States Referee Board had ruled that benzoate of soda, when used in quantities of one-tenth of one per cent in certain food products requiring a preservative, was harmless. After this ruling the ruling of the State Food Department was modified so as to conform to the rulings made by the national food officials "permitting one-tenth of one per cent of benzoate of soda to be used as a preservative in food products requiring same, when it is stated upon the label."

Another very difficult and perplexing question settled has been the labeling of extracts. Section 12 of the new State Food Law, in regard to labeling the various kinds of extracts, is aimed at those manufacturers and packers who have tried to evade the law by making an article that is below the standard by calling it some name such as "flavor," or "flavoring extract," "spirit" or "essence." It was found in nearly every case that this was done to deceive the purchaser; the department at once issued a bulletin that extract, flavoring extract, flavoring spirits, essences and tinctures, as applied to solutions used for flavoring food products, are synonymous terms and must have a legal and proper strength and conform to the standard provided in the law for "Extracts:" Provided, of course, that all those extracts which cannot be made from the fruit, berry, bean or other part of the plant, and must necessarily be artificial, as raspberry, strawberry, shall be labeled "imitation" in letters similar in size and immediately preceding the article. We give special emphasis to this fact, for the reason that there has been a contention that where the word "flavoring" or some synonymous word or term is used then it was not necessary that the article should contain the standard for extract of that article.

Another question settled was the use of saccharin as a substitute for sugar. It had been discovered that saccharin had been used as a substitute for sugar in over thirty classes.

of foods in which sugar is commonly recognized as a normal and valuable ingredient, and that saccharin was unwholesome and of no real food value, consequently in 1911 the State Food Department issued a bulletin forbidding its use in any of the foods of the state (including drinks) after July 1, 1911, and this ruling has been strictly adhered to by the department, and I think it is proper to state here that the national food officials, as well as the food officials of nearly all the states of the Union, have a similar ruling in regard to its use.

Bulletins, Etc., Issued by the Department.

During the past year there have been issued and mailed out about 7,000 annual reports and more than 100,000 bulletins and circulars from the department to the manufacturers, packers, dealers and food officials of the country and about 50,000 circulars to the dairy interests pertaining to the regulation and sale of dairy products, and the earnest endeavor of the department has been to educate the manufacturers and dealers in foods, the consumers of our state, also the civic organizations, women's clubs and other organizations interested in the work carried on by the department.

Guaranty Clause.

Our legislature, in its wisdom, has eliminated the element of intent from the offense charged in selling adulterated food and places the responsibility upon those who make and sell what the people live on. In other words, ignorance of the fact of adulteration does not excuse the dealer. That the dealer may not know that the article sold or offered for sale is adulterated, and yet be liable to punishment for selling or offering for sale, when the selling or offering for sale, or having in possession with intent to sell, is prohibited by statute is well settled under the provisions of our State Food Law.

The retail dealer should require of the manufacturer, packer or jobber of whom he purchases his goods a guaranty that they are manufactured and prepared in conformity with the State Food Law of Illinois and will meet its requirements, and the retail dealer should also use acumen and sagacity in ascertaining whether the manufacturer, packer or jobber is financially responsible, is doing a legitimate business and prepares his food in conformity with the State Food Law.

In nearly every case where the retail dealer has followed this plan, and the goods did not comply with the guaranty, the manufacturer, packer or jobber, as the case may be, has come forward and paid the fine, costs and attorney's fees, and thus relieved the retail dealer of any financial liability, and in this way putting the financial burden incurred for these fraudulent acts where they rightly belong—upon the fraudulent manufacturer, packer or jobber.

Wherever the retail dealer has used this care and precaution in the purchase of his goods, inquiring into the financial standing of the manufacturer, packer or jobber, and requiring a guaranty, there has been a great improvement in the quality and character of the foods and very few prosecutions have had to be brought. This care on the part of the retailer has greatly improved the food markets of the state during the past year, and the honest manufacturers, packers and jobbers seem to be in sympathy with this feature of the law and its requirements.

The practice of requiring a guaranty has caused the manufacturers and packers to prepare the various food products with greater care as to labels as well as sanitary condition of ingredients contained in the foods; and also to cause them to submit to the State Food Department for inspection food labels when in doubt about preparing labels for their goods, and not only is this true as to manufacturers and packers of our own state, but those of many other states are submitted.

Proper Labeling of Foods.

The proper labeling of the various food products so that the dealer and consumer and all who are interested in the question may know just what the article of food is, as well as to have printed on the label the name and address of the manufacturer, packer or dealer, and require the label to show the ingredients if the food is a compound, is one of the most difficult propositions with which the state food official has to deal. The righteousness and justness of the rule cannot be questioned. The proposition is self-evident and requires no proof.

The question of proper labeling has been one of the most serious with which food control officials have to deal in the work of co-operation and enforcement of the various food laws, state and national. In solving this problem the trouble has been that all foreign goods bear a foreign label, printed in a foreign language, and the question has been what requirements should be made in order to acquaint the consuming public, who are, as a general proposition, not acquainted with the language in which the label is printed.

The proposition has been solved by requiring all articles of food put up under foreign label to bear also a similar label printed in the English language, so that the consumer in this country may be as fully informed as to the nature and contents of the article sold as would the foreign consumer of the country in which it was prepared for sale.

Enforcement of the Law.

All these food laws have been enforced with greater ease this past year than during any of the former years it has been in effect, and there is a more intelligent idea of the purpose of the law entertained by manufacturers, the retail trade and the consumers of our state because of the greater efficiency of inspectors and chemists, and especially for the reason the consumer is constantly becoming more interested in pure food work and studying the bulletins and circulars issued by the department, and consequently more insistent in knowing the character of his food supply and the conditions under which it is made. Not only has the percentage of unwholesome foods dropped perceptibly, but it has been more difficult to find cases where there is just ground for suspicion of adulteration as well as of insanitary conditions surrounding the preparation, manufacture and sale of these foods, and the record of the last year therefore shows a decided improvement in the general character of all foodstuffs sold in our state.

Nearly fourteen years' experience in the enforcement of the food laws of the state have shown that fraudulent manufacturers and dealers can be compelled to comply with the law and can be made honest by law; that law can make dishonesty pay the penalty when it steals the livery of honest food products to serve this dishonest purpose, for it has been clearly shown in the past that in every civilized country nerce competition and unbridled greed undertook to profit by the adulteration of or falsely labeling nearly every article of food consumed by the human family. We only have to refer to the report of our state chemists, as made prior to the passage of the national food law and a modification of our state food laws and revision of same so as to conform with the national law, as to the numerous sophistications reported by them along all lines of foods analyzed by them.

The report of these analyses made by our state chemists of the various foods analyzed by them show that among many other articles of foods the following, imported into our state from other states or foreign countries, were adulterated in various ways: For instance, there was a close partnership existing between coffee and chicory that did a thriving business under the name, style and description of coffee. The spices, enriched with pepper hulls and ground cocoanut shells, were manufactured and sold in prodigious quantities. Baking powders, under misleading names, were wholly unfit for human consumption, crowded the markets of the state. Canned fruit was preserved with antiseptics which delayed the digestive processes. Jellies, colored in imitation of the natural fruit, were sold as fruit jellies and flooded the markets, although they were destitute of fruit juice. Lemon extracts were made without lemon oil, and vanilla extracts without vanilla. Hogs' lard, so much used in the preparation of certain food products, had to compete with the cheap cotton seed oil and was mixed in the same tub and sold under the label of lard. Oysters were partially embalmed with chemicals. Borax and formaldehyde went into milk and other dairy products to injure and kill babies, weaken invalids, and affected the general health of our people. A good portion of the strained honey of commerce never produced any strain on the bees. Cider vinegar was distilled from the grain and not from the juice of the apple. Vermont and Canadian syrup never saw Vermont or Canada, and was made from the sap of the corn that grew in the great American corn belt. Wheat flour was adulterated with corn flour. And no attention was paid to the sanitary condition under which many of these foods were manufactured and sold; the sole object seemed to be to manufacture a low line of cheap food products and place them upon the markets of the country for the best grade, and cheapness was secured by adulterations and false labeling, and the people of our state were endangered in life, health and strength as well as defrauded in the prices paid for same.

Those conditions prevailed not only in our state but in every other state in the Union prior to the passage of the national food law in 1906, as prior to that time there had been no way to regulate the interstate commerce in foods or to prevent foods that were unwholesome, insanitary or falsely labeled from crossing the border line of the state.

But after the passage of this national food law regulating the interstate commerce in foods and the modeling of the

state food laws along the lines of the national food law, and co-operation between state and national food officials, these conditions ceased to exist, for there was a way provided by these laws, state and national, and the co-operation between state and national food officials to regulate and control same.

My reason for so forcibly calling attention to these conditions that existed in the past in the enforcement of the food laws of our state is that an immense amount of work has been performed by the officials, not only in our state, but of nearly every other state in the Union, as well as the national food officials, to bring about these conditions, and for the reason it has been clearly demonstrated that this is the only way in which the consumer of these various foods of our country can be protected.

It took years to bring about these conditions, and while changes have been made in the personnel of the membership of the departments in many of the states in the Union as well as in the national food department, the work of bringing about these conditions has gone steadily on, and all these questions are taken up and discussed, through the committee on co-operation between state and national food officials and the American food officials at their annual meetings held each year for the purpose of co-operation and unity of action in the enforcement of these various laws, state and national, until now we have the most complete co-operation between all food officials in the enforcement of these laws, and the manufacturers, packers and dealers in these foods generally understand what is expected of them, and the public has been educated up to demand that these laws shall be enforced, and the work of co-operation between state and national food officials, as well as the food officials and civic organizations within the state, be carried on and no backward steps taken in the future.

Uniformity in the Work of Enforcing State and National Food Laws.

Prior to the passage of the new national food law by Congress in 1906 and the subsequent modeling of the state food laws of the various states in the Union, patterned after the national food law, it was notorious that the adulteration of food products had grown to enormous proportions and that the health and lives of the people were greatly endangered on account thereof. That was the "golden age" for the food adulterator.

In nearly every state of the Union food manufacturers and packers prepared and labeled their products to suit their fancy or for the purpose of underselling their competitors, without regard to the character or quality, or ingredients composing the article sold, and the public had no way of ascertaining as to the genuineness of the article sought to be sold.

This National Food Law, passed by Congress in 1906, and which went into effect January 1, 1907, is very comprehensive in its provisions, and provides, not only for the regulation and control of the food products under the Interstate Commerce Law, but also provides for uniformity of labels, rulings, and standards. The great trouble, prior to the passage of this National Food Law, had been that the laws of the different states were not uniform, and consequently there could be no uniformity of action among the food officials of the various states. Each state had its own laws, as to how food should be prepared, labeled and sold, and the commissioners of the different states had to interpret their particular laws, and require the various foods to be prepared, labeled and sold so as to conform to the laws of their respective states without any regard to uniformity. Hence the manufacturers and packers of foods had to keep a different set of labels for each state and territory in the union and prepare their foods in conformity with these requirements.

Prior to the passage of the National Food Law there was no law regulating interstate commerce in regard to foods, and the manufacturer or dealer could ship adulterated foods into this state without fear of prosecution. Consequently, Illinois, located, as it is, almost centrally in the union, became the dumping ground for adulterated and unwholesome foods.

As soon as the National Food Law was passed, and went into force, our General Assembly in 1907 revised our State Food Law along the lines of the national law, modeling it after the same, and providing for a Standards' Committee to prepare and make standards for the various food products in order that uniformity might be obtained and co-operation had between the food officials of our state and those of the other states of the union, as well as the United States food officials in the enforcement of all food laws—state and national.

Since the passage of the national and state food laws, co-operation has been secured in the enforcement of these laws between state and national food officials. Rulings and standards have been made for the manufacture and sale of the various food products of the country, and the state food officials are following these rulings as to labels and standards so that there is almost complete co-operation established, and now the manufacturer and vendor of adulterated and mislabeled foods can be reached outside of the state as well as those within the state.

Not only Illinois, but every other state in the union with the exception, I believe, of three, have remodeled their laws along the lines of the national food law, and in harmony with same, and the most important effect of these laws upon the manufacturers and packers of food is that it requires them to make the public familiar with their foods. The agitation over the country for pure food has aroused the public thoroughly for the first time to the paramount importance of finding out what they eat.

I deem it only proper to add in concluding my remarks as to the work of uniformity and co-operation now carried on by all food officials in the United States, all boards of health, all civic organizations and co-operation has been brought about in the past fourteen years. Prior to that time only twelve states in the union were organized and these states created an organization under the title of the National Association of State Dairy and Food Departments. Their first meeting was held at Detroit, Michigan, in 1897, and the third meeting at the Palmer House, in the City of Chicago, in October, 1899. The states represented at this meeting were Ohio, New York, Pennsylvania, Iowa, Minnesota, Connecticut, Wisconsin, Washington, Oregon, Nebraska, Illinois and Michigan. At the next annual meeting of this association, held at Milwaukee, Wisconsin, in 1900, I was elected president of the association and ex-officio chairman of the executive committee, and had the honor of being re-elected at the next annual meeting held at Buffalo, New York, in October, 1901.

Immediately after the meeting at Buffalo, New York, our committee on legislation drafted a proposed bill, and submitted the same to Congress for its passage, and also, in behalf of the National Association of State Dairy and Food Departments, memorialized Congress in favor of uniform legislation, and especially the passage of the proposed bill that had been introduced in Congress by Honorable Vespasian Warner of Illinois.

A copy of this Memorial was mailed to every senator and representative in Congress, to every food official in the United States, the governors of the different states, as well as the manufacturers and packers of foods throughout the United States. The Memorial, as prepared, and mailed out, as referred to, reads as follows:

Memorial.

Presented by The National Association of State Dairy and Food Departments in Favor of Uniform Legislation for the Conduct and Operation of the Same.

To the Congress of the United States:

Your memorialists, A. H. Jones of Illinois, J. E. Blackburn of Ohio, R. M. Allen of Kentucky, J. B. Noble of Connecticut, John Hamilton of Pennsylvania and H. O. Adams of Wisconsin, respectfully state that they constitute a committee on legislation, appointed at the Fifth Annual Convention of The National Association of State Dairy and Food Departments, held at Buffalo, New York; and that they feel warranted in asserting that they speak for and in behalf of the population of the entire United States, numbering in all eighty million persons. They firmly believe they voice the overwhelming sentiment of this vast population, and with which sentiment they beg to say that they are themselves in hearty and entire accord, in favoring the passage at the earliest possible date of House Bill 9351, entitled: "A bill for the establishment of a food bureau in the Department of Agriculture, and for preventing the adulteration and misbranding of foods in the District of Columbia, and the territories, and for regulating interstate commerce therein, and for other purposes."

Your memorialists would respectfully represent that the object of said bill is, in their judgment, and that of the association for which they speak, one of vital importance to a general public, affecting as it does the question of a pure food supply, and involving thereby to a very large degree the general health and well being of all the people. "Pure food," it has been well said, "is as necessary to good health as pure air is essential to long life." In harmony with this idea the National Association of State Dairy and Food Departments has, for some considerable time past, labored assiduously to bring about such legislation by Congress as would govern and regulate the sale of food stuffs in all parts of the country, and thereby enable the workings of the pure food com-

missions in the various states of the Union to be conducted upon uniform and harmonious lines.

For the purpose of fully elucidating our position in this regard, your memorialists desire respectfully to state that public sentiment has demanded for the purpose of safeguarding and protecting the vast industries involved—the dairy and food supplies of the country—the establishing of Pure Food Commissions by the various states, such commissions being vested with supervisory powers in relation to the production, handling and sale of all food products within such states; that this demand has been very generally complied with, and that we, your memorialists, virtually speak in behalf of the legally organized pure food commissions of most of the States of the Union.

Your memorialists further respectfully represent that in every state in which a pure food commission has been created and established by act of the legislature the operations of the same have given complete satisfaction to, and have been universally commended by the overwhelming majority of the community, the fact being generally recognized that the law works no hardship upon reputable houses and, in fact, affects only the operations of irresponsible firms which handle adulterated products.

The only element of the community which has at any time resisted the rulings of the State Dairy and Food Departments has been that which has been concerned in the vending of adulterated food.

Test cases in the courts, however, have invariably upheld the laws when properly drawn, as against the cry of unconstitutionality which has always been raised by those whose evil practices have been interfered with by their operation. Such opposition to laws passed for the welfare of the community at large by parties whose individual avocations and interests therein concerned are inimical to the same are not new, and your memorialists would cite the attack upon the Interstate Commerce Commission as a case in point.

We would respectfully call the attention of your honorable body to the fact, however, that owing to local conditions and to certain variances in the language and wording of the acts passed by the different state legislatures, there is much confusion as to details in the operations of various state dairy and food commissions, and to a very considerable extent the ends for which said commissions have been established are thereby and on that account frequently frustrated or rendered unattainable.

The main objects of the state pure food departments are to prevent the production and sale of adulterated food under false pretenses, and to insists upon the public being plainly advised as to the true name of the article or ingredient of food supplied by the manufacturer or vendor of the same, so that the purchaser of honey, for instance, may be informed whether or not the same is diluted with glucose, or if coffee is adulterated with chicory, baking powder with alum or cream of tartar, butter with tallow or cotton seed oil, and so on. So long as the consumer knows what he is getting the principle has been accomplished. A uniform system of labeling all packages, bags, cases, or other parcels of food products, such label stating the true name and ingredients of the contents, is the only effectual means to the end desired; and it is in order that there may be adopted in this regard uniformity of rules and action that your memorialists urge upon your honorable body the desirability of passing this bill.

Your memorialists would further urge upon your attention that the measure, the enactment of which is sought, is desirable from the standpoint of view of our national honor and public morality.

That pure food tends toward and contributes to the health and therefore to the happiness of the nation, that laws ensuring it affect beneficially great industries, and millions of wage earners, and that wise legislation framed and enforced for that purpose cannot fail to have the most salutary and beneficial effect upon the entire nation.

We therefore trust that in presenting this petition with the accompanying verbatim report of the proceedings of the last Annual Convention of the State Dairy and Food Departments, together with the epitomized laws of the various states and territories against the adulteration of dairy and food products, we shall have given to your honorable body full and satisfactory reasons for the passage of the bill."

At this meeting at Buffalo in 1901 our national association had secured the co-operation of nearly all the states having state food laws and food officials to enforce same. The first southern state to join the Association was Kentucky, represented by Hon. R. M. Allen, Commissioner, and Prof. Scovill of the Kentucky Experiment Station, who were in charge of the food enforcement laws. Mr. Allen was elected secretary of the Association and by virtue of his office was a member of the executive committee, and rendered the committee valuable assistance as he remained a member of the committee until the bill was passed by Congress in 1906. After Congressman Warner's term expired, the work of looking after the National Food in the House of Representatives was taken up by Congressman James R. Mann of Chicago, and too much credit cannot be given Congressman Mann for the splendid fight he made for the law, for in my judgment, it was largely through the interests he took in the measure that secured its passage in the House of Representatives. After the bill passed the House it was taken up in the Senate by Senator McCumber of South Dakota and Senator Heyburn of Idaho, who especially looked after its passage in the Senate. They did their work well and great credit should be given them for their zeal in taking care of the bill in the Senate, for by securing this national food law, hundreds of millions of dollars annually have been secured to the food consumers of the nation, as the tribute paid by the consumers of these adulterated foods would annually pour into the coffers of these adulterated manufacturers, packers and dealers that much profit, and in addition to this in many cases the article of food was prepared with unwholesome ingredient injurious to health. Prior to the passage of this National Law there was no way of ridding the markets of the nation of unwholesome foods.

In this work of securing a national law the governors of the states, the United States Department of Agriculture and the Bureau of Chemistry, the newspapers, food journals and magazines, the honest manufacturers, packers and dealers in foods, the various civic organizations and women's clubs, all assisted in securing the passage of this law and new revised state food laws in harmony with the national law.

This national law and our new state food law have been passed upon by the Supreme Court of the United States and the Supreme Court of the State of Illinois, and have been sustained, and the people of the nation and state are to be congratulated upon the benign results obtained from their enforcement.

Effect of the Enforcement of the Law.

The honest manufacturers, packers, jobbers and trade interests, as a general proposition, are in favor of an honest label—one which defines to the consumer the true character of the article it covers. There is a minority that claims that when once a food product is admitted to be pure and wholesome it should not come under the jurisdiction of the food law, and should be sold, as any other article of merchandise; and also, that when a food law undertakes to protect the people from fraud and deception it is going beyond the question of pure food.

The fundamental principle is that every consumer is entitled to choose as to the kind and quality of the food offered for sale. For example, whether they shall have "pure dairy butter," when desiring to purchase that article, or a mixture of oleomargarine and dairy butter; absolutely pure cane syrup, or some questionable imitation, and this comparison is equally applicable and true as applied to all foods and food products.

The commission has begun an active campaign all over the state, under the new Sanitary Law, for scrupulous cleanliness in all food and dairy products as now under the new Sanitary Law we can enforce sanitary conditions.

New Legislation.

In the last General Assembly, a cold storage bill was introduced in the senate by Senator E. J. Glackin, and passed the senate, and went to the house and was on third reading in the house, but owing to the crowded calendar, in the last day of the session, it was not reached. This was a splendid bill and some such one as this should be enacted into law. Such a law has been enacted by nearly every other state in the Union.

At the last annual meeting of American food officials, held at Seattle, Washington, in July, 1912, a uniform "cold storage bill" was unanimously agreed upon, and the same should be recommended by the food officials of the different states to their respective legislatures, and in accordance with such resolution I have attached a copy of said "Cold Storage Bill" to this report, and it will be found as an appendix in this report, and reference is made to the same so that our next General Assembly may have the advantage of this proposed bill in drafting a bill regulating cold storage of all food products in our state.

I would also urge upon your attention the necessity of revising the State Pharmacy Law, and placing the inspection of drug stores and places where drugs are sold under the inspection department of the State Food Law, as under the

present law there is no provision for the inspection of drug stores and drugs, and this condition should not exist.

The drug laws of our state aim to place in the hands of our physicians pure drugs which, under their skillful administration, will alleviate the ills of disease and prevent its spread.

The federal government has placed the enforcement of laws pertaining to both of these classes of merchandise in the Department of Agriculture.

No laws controlling the sale of merchandise, and requiring chemical examination for their enforcement, can be equitably and justly enforced throughout the state without the administration of the law being placed in the hands of an executive who is supported by the proper inspection force and proper laboratory force. The food department is so provided. The board of pharmacy, which is at present empowered to enforce the drug law, has never been so equipped. Forty of the other states of the Union, following the lead of the Department of Agriculture, have seen fit to place the administration of both these laws in the hands of a single state department. In the interest of economy in the administration of law, and effectiveness of its enforcement, would suggest that in this state these two laws should be placed under the same administrative body. The food department being already equipped could, with little added expense to the state, enlarge its force and effectively administer both the food and drug laws of the state. That the enforcement of these laws should be in the hands of a single administrator is also apparent, from the fact that many articles of commerce are recognized both as foods and as drugs. The same field should clearly not be covered by two administrative bodies, and the best enforcement could be secured by there being no question as to which was the administrator in any particular case.

The conservation of our state and national wealth depends on maintaining the richness and fertility of our soil. In this connection more adequate provision should be made for the enforcement of laws pertaining to the sale of commercial fertilizers. This, like the food and drug acts, requires the assistance which can come only from the chemical analysis and expert testimony in order to effect a proper enforcemement of this act. From experience in other states we believe that this law could be best enforced by that department already equipped with a body of chemists and inspectors who are picking up samples as they are offered for sale and analyzing same. We would, accordingly, recommend that the law with reference to commercial fertilizers be so amended as to place the enforcement of the act in the hands of the food commission, together with power to appoint such additional assistants and chemists as would be necessary for the enforcement of these laws.

Our Food Industries.

As stated, the work of the Department has grown enormously and it is now co-operating not only with the national food officials and the food officials of the other states of the Union, but also with the mayors and boards of health of the different cities of the state, with the civic organizations of the state interested in food control work, with the women's clubs organized throughout the state, as well as with the public schools, normal schools and colleges of the state.

A study of the history of food conditions and food control work shows that Illinois is the first state in the Union in the production, manufacture and sale of the various food products pertaining to our country. Her broad prairies and fertile valleys are peculiarly adapted to the production of these foods, and especially to the products of the dairy.

We have in our state 17,000 grocers, 5,000 manufacturers of foods, 100,000 dairies, 700 creameries and receiving stations, 100 milk condensaries and bottling plants, not taking into account the cheese factories, booths, restaurants and other places where foods are sold. More oleomargarine is manufactured in our state than in all the other states of the Union; more alcoholic beverages are manufactured here than in any other state. Chicago is the largest cold storage center in the world. When we take into consideration all these facts, and the further fact that Chicago is the greatest distributing point for all these foods, in the world, the necessity for an efficient enforcement of the Illinois Pure Food Laws is apparent. This is especially true when we consider how strong and powerful are these various food organizations, and how thoroughly they are organized and entrenched. Knowing this it becomes apparent that in order to provide for our six million of consumers of all these vast food products of our state, and have them supplied with a pure and wholesome food product, these food laws and the regulation for the sale of this vast food product should be carefully guarded, so that the health and lives of the people of our state are fully protected.

The different food industries of the state are generally organized. The manufacturers have their city and state organization; the retail grocers have their city and state organizations; the dairymen have their county and state organizations—and along all other of the different branches pertaining to the various foods the same condition prevails, so that the food industries of the state are keeping up with modern conditions and these different organizations are doing much to bring about better conditions in the food markets of the state.

It has been my endeavor to attend the annual meeting of these different associations, or have some representative of the state food department to attend, and explain to them the State Food Law and its requirements, as well as to attend the meeting of the mayors of the state, and the annual meetings of the State Federation of Women's Clubs. I also attended the annual meeting of the National Association of State and National Food officials held at Seattle, in the state of Washington, during the month of July, 1912.

Reference to Report of Food Officials.

I desire to call attention to the report of Mr. John B. Newman, assistant food commissioner, and ex-officio dairy expert. The report of Mr. Newman is very full in regard to work performed by the department in connection with the enforcement of dairy laws as well as discoveries made in new sophistications of food and dairy products. Mr. Newman has also given considerable attention to the annual meetings as well as county meetings of the dairy interests of the state; also addressed many of the annual meetings of the Federation of Women's Clubs during the past year.

I desire to call attention to the report of Mr. Charles F. McKinley, attorney for the department, who has had charge of the food prosecutions for the department, as his report is very interesting. Mr. McKinley has had many mooted questions to contend with during the past year and in nearly every case he has been successful in his contention, and successful in his prosecutions of the various suits brought for the department. Mr. McKinley has also given some time to addressing the various food organizations throughout the state and especially the Women's Clubs of Chicago.

I desire also to call attention to the report of Dr. T. J. Bryan, state analyst. His report will show many new sophistications of the various foods of the state during the past year, and the results of the work performed in the laboratory of the different chemists employed, as well as a statement of principles and requirements for the analysis of foods, taking samples, etc. Dr. Bryan, during the past year, has given considerable attention to the educational part of the food control work, and along this line of work has delivered addresses on different food topics pertaining to the analysis of foods and results obtained in the laboratory before the different civic federations interested in food control work.

I also desire to call attention to the report of Dr. Louis J. Tint, bacteriologist of the state food department, and to the tests made by him. Dr. Tint's report will be found very interesting, as many new discoveries are reported by him.

I desire to call attention to the report of the Food Standards' Commission as to the work performed by the Commission during the past year. The Commission has given much attention to the subjects of ice cream, dairy products, vinegar, etc., and their report will be found very interesting.

Attention is further called to the instructions to inspectors and others, submitting samples of food for analysis, also to the principles upon which food standards are based, as well as to the tentative food standards adopted by the Illinois State Food Commission along with the tables giving percentage of foods, etc.

Attention is also called to the bulletins issued by the department since the passage of the new State Food Law numbering from 1 to 26 inclusive. A study of these various bulletins will show that they cover nearly all those articles of food that require a special label, also the law requires these foods to be manufactured under sanitary conditions.

I desire also to call attention to the financial statement of the department, as well as the suits brought, disposed of and still pending during the past year.

I desire, also, to call attention to the list of manufacturers and jobbers in concentrated commercial feed stuffs.

Thanks of the department are hereby tendered to the public press of the state, and especially to the daily papers of Chicago, as well as the various food journals and food magazines for the valuable assistance rendered the department.

Publicity has helped the department very much, as by this publicity the public is informed as to those manufacturers, packers and dealers who are violating our food law as well as of the insanitary condition existing in the various parts of the state where foods are prepared and sold, and the consumers of the state are kept informed as to these illegal manufacturers and dealers, and accordingly refuse to patronize them.

The thanks of the department are also respectfully tendered to the State Federation of Women's Clubs, as well as the District Federation of these Women's Clubs, for they have rendered the department great assistance in the work of enforcing the various food and food sanitary laws of the state, and it has been the endeavor of the department to co-operate with them in the good work in which they are engaged in the enforcement of and bringing about better conditions in the various food products of the state, and especially better sanitary conditions pertaining to the preparation, manufacture and sale of all of our foods.

I desire, in this connection, to tender my thanks to each and every member of the State Food Department, for the efficient work performed by them in assisting me in the enforcement of the various food laws of the state during the past year, for I could not have succeeded had it not been for the faithful and painstaking assistance rendered by them, and especially to the inspectors in the prosecution of the dairy laws of the state, for owing to conditions connected with the milk supply in order to take samples they would have to get up as early as 3 o'clock in the morning, so as to be at the milk receiving stations, depots and other places, where milk was handled, to secure samples for the laboratory, and they received no extra pay or compensation for these services rendered by them for the department.

In conclusion, I want to thank your Excellency for the great help you have rendered the State Food Department in recommending to our General Assembly the revision of our state food law and having it modeled along the lines of the National food law; the new revised stock food law, the sanitary food law, also the additional help in the way of inspectors, chemists and funds to carry on the work of the department and thus place it in the front rank with the other states of the union. I feel that your assistanne and encouragement have placed the department on the high plane it now occupies with the state food departments of the other states of the union, and in this connection I want to return thanks to our General Assembly for the great interest they have shown the State Food Department in giving the department not only the food laws, and revisions of same, so the department might have the necessary legislation to carry on its work more successfully, but the necessary help and funds required for the ever increasing work to meet the new food control conditions of the state.

General Summary.

I have arranged this report for publication as follows:

1. Roster of Members.
2. Members State Food Standard Commission.
3. Table of Contents.
4. Letter of Transmittal.
5. Report of Alfred H. Jones, Commissioner.
6. Report of John B. Newman, Assistant Commissioner.
7. Report of T. J. Bryan, State Analyst and of the Laboratory, including tables and analysis, etc.
8. Report of Dr. Louis J. Tint, Bacteriologist.
9. Report of Charles F. McKinley, Attorney.
10. Report of Food Inspectors.
11. Suits brought, disposed of and still pending.
12. List of feed stuffs, manufacturers and brands.
13. Financial Statement.
14. Supreme Court decisions.
15. Forms of Indictment.
16. Bulletins issued July 1, 1907.
17. Instructions to Inspectors.
18. Tentative Food Standards.
19. Rules and Labels.
20. New Revised Illinois Dairy and Food Law.
21. Oleomargarine Law.
22. Sanitary Food Law.
23. State Stock Food Law.
24. National Food Law.
25. Index to Report.

All of which is respectfully submitted.

ALFRED H. JONES,
State Food Commissioner.

United States Department of Agriculture

OFFICE OF THE SECRETARY.

FOOD INSPECTION DECISION 149.

USE OF COPPER SALTS IN THE GREENING OF FOODS.

Paragraph 4 of Food Inspection Decision 148 is hereby modified to read as follows:

The Secretary of Agriculture, therefore, will regard as adulterated, under the food and drugs act, foods greened with copper salts which, on and after January 1, 1913, are offered for entry into the United States or are manufactured or offered for sale in the District of Columbia or the Territories, or which, on and after May 1, 1913, are shipped in interstate commerce.

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., December 6, 1912.

TO PROMOTE OUR CANNED GOODS IN FOREIGN COUNTRIES.

The National Canners' Association has indorsed Otto Reil of Chicago for appointment by the Department of Commerce and Labor at Washington, D. C., as special Government expert to investigate conditions in foreign countries with the object of opening up the foreign markets to American canned food products. The Government some time ago agreed, at the request of the National Canners' Association, to detail an expert for this work. Accordingly Mr. Reil has been selected on account of special fitness to undertake a mission of this character. The canned goods packers and the Government will cooperate as far as possible in the work of creating a larger demand in European and other foreign countries for domestic canned vegetables, fruits, etc.

COMMITTEE TO STUDY TEA REGULATIONS.

James M. Montgomery, president of the Tea Association of the United States, has appointed the following committees to study the Treasury regulations governing the examination of tea and to make whatever suggestions it sees fit as to the advisability of transferring the jurisdiction over teas from the Treasury Department to the Agricultural Department:

H. Woodworth, of Robinson & Woodworth, Boston; Charles Atwood, of the J. C. Whitney Company, Chicago; Charles D. Jayce, of A. Colburn & Co., Philadelphia; Alfred Adelsdorfer, of M. J. Brandenstein & Co., San Francisco and New York, and D. S. Marsh, of Hunt & Co., New York.

TO STUDY WALNUT CULTURE.

Since the larger portion of the walnuts consumed by Americans are imported from foreign countries it is interesting to note that Representative Raker has introduced into the House of Representatives a bill providing that the sum of $10,000 be appropriated for the investigation and improvement of walnut culture in this country. At the present time California is the only state in which walnuts are produced in commercial quantities, although several other states claim soil and climatic conditions favorable to the growth of this class of nut trees.

WILL INFORM ITALIANS AS TO OUR FOOD LAWS.

Prof. Burton J. Howard of the microbe and chemical laboratory of the Department of Agriculture at Washington, D. C., has been sent to Italy to tell the foreign manufacturers what they must do to ship tomato sauce and other products into the United States under the American pure food laws.

PROHIBITS PRESERVATIVES IN EDIBLE FATS.

The Government of Dutch Guiana has given notice that from January 1, 1913, the importation into and the sale within Dutch Guiana of butter, margarin, lard, and ghee containing preservatives such as boric and benzoic acids will be prohibited.

Report of Illinois Food Commission Bacteriologist

By Dr. Louis J. Tint, State Bacteriologist.

Chicago, Ill., December 31, 1912.

TO Hon. A. H. Jones, Illinois State Food Commission, Chicago, Ill.

Dear Sir: It gives me great honor to submit, upon your request, my report of the work done since I began the duties as bacteriologist of this department.

As this department was new, and the character of the work relating to the department is of comparatively recent development, the opportunities to investigate the relations existing between diseases of vegetables, animals and human beings, influenced me to accept the position. Indeed, I am happy to state that, although it is nearly a year since I began my duties, I feel as if it were but yesterday.

The pleasure my work has given me, which is only a beginning of more important work in the future, has convinced me of the immense opportunities while performing the duties as bacteriologist to investigate certain known diseases of unknown origin. Certain diseases in animals used as food are traceable directly to eating diseased vegetables. Similar diseases are present in human beings. As the object of the State Food Commission is to protect the public from eating unwholesome food, I will endeavor to serve the department to the best of my ability, and work in unison with the department and for the benefit of the people.

My Duties.

I am occupying the position as pathologist, and must be able to recognize whether certain meat products, brought to be examined, are diseased, and whether they are fit for human food. As bacteriologist, I must find and prove that certain bacteria, found in food products, are disease producing and dangerous to the people. As botanist, I must recognize whether vegetable products are in a sound condition, and if they are unfit for food. I must be acquainted with the parasites that destroy the food value. As physician, I must be ready to give expert testimony, that such unwholesome food is dangerous to the human health.

Bacteriology.

Years ago we paid little attention to bacteria, because we knew very little of their destructive action. The science of medical bacteriology, which deals with disease producing bacteria in human beings, is only about twenty-five years old. But the science of bacteriology or plant pathology, which deals with disease producing fungus parasites of vegetables, fruits, cereals and forests, is only a few years old.

The government as well as enlightened communities realize their obligation to the people from the economic and humane point of view and endeavor to study the cause of diseases as well as attempt to prevent the same.

Method of Examination.

When a suspected food product is brought to be examined, I have to find out whether it contains bacteria or ptomaines. The presence of bacteria alone is not conclusive that the food is injurious. I then have to isolate the bacteria in pure cultures. The culture media, used for this purpose, is sterilized for half an hour on three consecutive days, at fifteen pounds pressure. The fourth day it is tested in the incubator to see if it is sterile. Then comes the testing of deleterious or poisonous properties upon animals, to protect the people from similar effects. Not only are the organs examined on post-mortem and the lesions studied, but microscopic examinations are also made of the same organs, after they have been cut according to laboratory methods.

Effects of Diseased Meat.

It has long been recognized that when diseased or decomposed meat products were eaten, they produced similar or modified diseases in the human beings. It was proved that certain epidemics in human beings, particularly those due to meat poisoning, were caused by eating decomposed or unwholesome food. When it was established, without a doubt, that there is a relation between tuberculosis in animals used as food and tuberculosis in human beings the government was compelled to establish a general system of meat inspection.

Such meat inspection is very efficient when the product is intended for interstate commerce, but in smaller towns where meat is used for local trade, partial or no inspection is practiced. The question therefore arises, are these people not subject to the same diseases? Are they not entitled to the same protection against avoidable diseases as their neighbors from larger cities?

Suspected Meat Examined.

TUBERCULOSIS MEAT.

A. 127. Microscopic tubercles are present on the flesh and fat. Smears made, stained and examined show many tubercle bacilli in each microscopic field. Results—Adulterated, infected and the products of a diseased animal.

A. 234. Glands from a cow—Show the presence of naked eye and microscopic tubercles. Diagnosis—Tubeculosis. Results—Adulterated, infected and the products of a diseased animal.

A. 370. Meat and glands from a cow—Show generalized, advanced tuberculosis. Results—Adulterated, infected and the products of a diseased animal.

The Attempt to Condemn the Entire Carcass of a Tubercular Cow.

On June 12th Inspector Frank J. Hoey brought to the department to be examined in a sealed mason jar glands of a suspected tubercular cow. The glands were from underneath the tongue and around the bronchial tubes. When these glands were opened, they were cheesy and caseated, thus showing far advanced tuberculosis. There were a number of glands which did not show any suspicion of tuberculosis, when examined by the naked eye. These were cut according to laboratory methods. On microscopic examination the entire glands showed microscopic tubercles, some of which were in a stage of caseation-necrosis. The finding of such glands in a state of advanced tuberculosis, and the presence of microscopic tubercles in the glands unsuspected by the naked eye, caused me to pronounce the entire carcass unfit for food.

Reasons That Prompted Me to Condemn the Entire Carcass.

While serving as interne and resident pathologist for three years in Philadelphia General Hospital we had several post-mortems daily, mostly tubercular. Organs far away from the focus of infection did not show in majority of cases gross or naked eye tuberculosis. When, however, these were subjected to microscopic examination they invariably showed tuberculosis.

A comparative study, at the same time, of live stock and products of tubercular animals showed similar results. Milk from suspected tubercular udders was examined, and frequently tubercle bacilli were found. When these animals were killed sometimes the entire abdominal cavity and the organs within showed generalized tuberculosis; sometimes only one or two intestinal glands were tubercular. When infants died from intestinal tuberculosis, their infection could be traced to drinking milk from tubercular cows.

Tubercle bacilli were frequently demonstrated in milk of consumptive mothers who nursed their children. Some of the infants died, and the presence of advanced intestinal tuberculosis was found on post-mortem.

When food is digested in the stomach or bowels, it is taken up by the lymphatic blood system and distributed to every part of the body for nutrition.

In animals as well as human beings who have open tuberculosis or ulcers of the stomach or intestines, in which myriads of living tubercle bacilli are present, some of the living tubercle bacilli are also taken up with the digested food and are distributed to every part of the body.

The question therefore arises, what part of the body of such animals with open tuberculosis does not contain tubercle bacilli? What part of the body of these animals are not tubercular?

Authorities on Tuberculosis.

Present authorities on tuberculosis are now agreed that bovine tuberculosis is transmitted to human beings. If meat from tubercular animals should be eaten raw or improperly cooked, we can see how tuberculosis is transmitted. Besides, cooking does not destroy all of the poisonous products of tubercle bacilli.

The above facts and many others justify me in condemning this meat, and in preventing its sale as food. This is particularly true when such meat is sold to the public, which is not properly informed or may be careless in taking the proper precautions while cooking tubercular meat.

The Trial.

The case came up for trial on June 25 in Judge Nortan's court of the city of Rockford. The attorneys presenting the case for the commission were: State's Attorney North of Winnebago county and Chas. F. McKinley, attorney for the Food Commission. The witnesses for the commission were: Inspectors, Assistant Commissioner J. B. Newman and the bacteriologist. Attorney for the defense was E. D. Reynolds of Rockford; the witnesses were three local veterinaries, the butcher, and the farmer from whom the cow was bought, and whose premises it was killed. The representatives of the State Food Commission brought suit to condemn the meat in question upon Article VI of the State Food Law, which is as follows:

"If it consists in whole or in part of a filthy, decomposed or putrid, infected, tainted or rotten animal or vegetable substance, or article, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that had died otherwise than by slaughter."

The witnesses for the commission proved that this animal was diseased, that it was infectious, that it was filthy, infected with tuberculosis and the product of a diseased animal, hence unfit for food. The veterinaries testifying against us were: Veestura of Rockford, Ill., who is stationed at the Schmusz plant at Rockford; R. R. Wilson of Rockford and Dr. T. B. Page of the same city. All testified that these glands were tubercular; that they examined the meat a few days after the animal was killed, but could not locate any evidence of tuberculosis. When asked how they are governed in condemning tuberculous cattle, they said that "when they find caseated, chessy glands they would condemn those glands and the part that goes with it." When asked whether they have other methods of examination, as microscopic or otherwise, they said no. We, however, found those glands which they did not consider to be tubercular to be of far advanced tuberculosis when examined under the microscope. This showed that the animal was more diseased from tuberculosis than they thought it to be. On account of the fact that such local veterinaries testified against the state in its endeavor to condemn such meat as food, the jury was influenced and brought a verdict against the commission and exonerated the butcher. The case was appealed.

Results and Effects.

The result of such a precedent allowed to go on would cause other butchers, when they hear of this case, to fight the State Food Commission in its attempt to protect the public from the use of unwholesome food. Thus the public would be fed with worse meat because the State Food Commission is hindered in suppressing it.

Today we spend hundreds of millions of dollars in building institutions for the care and maintenance of tuberular people, whose only chance for recovery is fresh air, plenty of milk and nourishing food. When, however, we give to such patients tuberculous meat, and milk from tuberculous cows, we only hasten their death. It is true that a strong person will not be so easily affected by such products, but it is for the interest of infants, feeble people ,and convalescing men and women that the state should fight for their protection. How is it that within the last three months, before the trial, in the city of Rockford, the most beautiful city in the state, where there is plenty of fresh air, 16 per cent of the deaths were due to tuberculosis and 25 per cent to typhoid because of an epidemic? Surely they do not get it from the fresh air—then how?

I hope the commissioner and his assistants will not be discouraged by such a verdict in their attempt to protect the health and happiness of the public.

Actinomycosis.

Actinomycosis, lumpy jaw or wooden tongue, is a disease mostly prevalent in cattle and is sometimes found in man. It is caused by a ray fungus, which produces a slow but progressive chronic infection. In the early stage of infection the parasites give rise to a small tumor-like mass, or tubercle. When that tumor reaches a certain size it suppurates and the discharged pus contains the parasites. Should the pus with the parasites be deposited in a favorable place, or grazing ground, where other animals may eat the grass, the infection will spread. This may explain why there are local epidemics of lumpy jaw in certain localities.

Meat from Actinomycosis Cattle Examined.

No. 249. Jaw bone from cow. The entire jaw is necrotic, ulcerated and is full of actinomycosis fungi. Results—Adulterated, infectious and diseased meat.

No. A. 253. The intestinal glands show the presence of actinomycosis ray fungi on microscopic examination.

No. A. 250. Spleen from actinomycosis cow. No ray fungi could be demonstrated on microscopic examination.

No. A. 252. Udder from actinomycosis cow. No ray fungi could be demonstrated on microscopic examination.

No. A. 248. Pus from jaw of cow. Microscopic examination shows the presence of ray fungi. Results—Meat from such an animal is unfit for food.

Sudden Death of Calves at St. Charles School for Boys.

At the St. Charles School for Boys there is a beuatiful herd of cattle. Last spring about six valuable calves died



DR. LOUIS J. TINT,
Bacteriologist, Illinois Food Commission.

suddenly, in succession. Dr. Bryan asked me to investigate the cause of the deaths. I performed the post-mortem examination of the last calf that died. The following is the result: Pleural cavities contained about 200 c.c. of dark-colored bloody fluid. The pleura was adherent to the chest wall; adhesions were more marked on the right than on the left side. The pericardium showed recent pericarditis, about 500 c.c. of a blood-colored fluid was present in the pericardium. The right upper lobe was dark and consolidated. Upon incision there exuded a gray-colored fluid. Other areas of the same lung showed emphysema. Glands of the neck were normal.

Abdominal cavity; recent peritonitis was noticed. Peritoneum contained about 200 c.c. of the same dark-colored bloody fluid. Gas bubbles were scattered throughout the peritoneum Walls of the intestines were glued together with recent adhesions which were easily separated. No lesions were noticed in the stomach or intestines.

The liver which was slightly enlarged showed in various places small yellow necrotic areas. The gall bladder was

distended with thin, watery, yellowish fluid. The spleen was normal.

Smears and cultures from the peritoneal fluid, heart's blood, pleural fluid and bile showed the presence of a bacillus resembling the anthrax group, but no spores could be demonstrated in smear. Cultures showed that the organism was anaerobic. Further study of this organism proved it to be Bacillus Aerogenes, Capsulate, or Bacillus Welchii.

Pathological diagnosis: Pleurisy, pneumonia, pericarditis, peritonitis and general speticemi.

Precautions to be taken: Since this bacillus may occur in the garden soils, especially in the places surrounding barns, it may infect an animal through some wounds or injuries. Therefore, highly bred calves which as a rule are more susceptible to infection should be guarded against injuries, and wounds in such calves should receive immediate and proper attention.

Sausage.

No. Z. 8. This sample of liverwurst was sent to be examined by Dr. John D. Bartlett, Health Commissioner, Galesburg, Ill.

The sample of liverwurst was given to me by Mr. Newman, Assistant Commissioner, and the following is the bacteriological report:

The cut surfaces of this liverwurst shows areas of discoloration with a distinct sour, putrefactive odor. In making smears it shows the presence of a great number of diplococci and bacteria; cultures from this were made and they show virulent streptococci. From a twenty-four hour broth culture, 1 c.c. when injected into a rabbit intraperitoneally killed it in ten to twelve hours. This liverwurst shows a large number of pathogenic bacteria and is therefore unfit for food purposes.

No. I. 1423. Liver Sausage—The external surface is covered with a slimy coating. It has a sour putrefactive odor, and in some places the sausage is swollen. Microscopic examination shows the presence of diplococci and bacilli. Pure cultures of streptococci when injected intraperitoneally causes the death of a rat in twenty-four hours.

Results—Adulterated, filthy, decomposed and contains pathogenic bacteria, hence unfit for food. Adulterated.

No. I. 424. Frankfurt Sausage—The external surface is slimy and contains diplococci. Cultures from the internal surface shows the presence of virulent staphilococci, which when inoculated into rats killed them in twenty-four hours.

Results—Filthy, decomposed food products containing pathogenic bacteria, hence unfit for food. Adulterated.

No. I. 425. Garlic Sausage—Yeast and virulent streptococci were obtained from the inside of the sausage, which when inoculated into rats, kills them in 24 hours.

Results—Adulterated, filthy, decomposed.

Onarga, Ill., December 8, 1912.

Pure Food Commissioner.

Dear Sir: Please examine this sausage and report to me as soon as convenient. We have a butcher here selling tainted meat and would like very much to catch him at it. There has been a number of complaints.

Yours sincerely,

DR. F. R. MORGAN,

President Local Board of Health.

Results—This sample of sausage has been submitted to me by Mr. Newman, Assistant Commissioner. The result of the examination is as follows:

Direct stained smears show the presence of diplococci. On cultivating, the same shows the presence of streptococci and spore bearing bacilli. The latter has a powerful tryptic action on the blood serum. It dissolves a large test tube of coagulated blood serum in two days. Feeding the animals with either streptococci or bacilli makes them sick and they die within three days.

From this I wish to conclude that the sausage is unfit for any food product. The presence of any virulent streptococci shows that it comes from diseased animals.

Some of these products are consumed raw, and even if they should be boiled the spores of the bacilli would not be destroyed.

A Case of Ptomaine Poisoning.

The latter part of August Mr. S., a butcher, brought ham to be examined to the State Food Commission. The reason that prompted him to do this was as follows:

On the 17th of August he sold three slices of ham, which he bought from a reliable packing house, to three different individuals. The first slice of ham he sold to an old man, who after partaking of it suffered violent cramps. The next day he tried to eat the rest of the slice, but it gave him similar cramps. Another slice was bought by two neighbors, who received similar cramps after eating it. A third slice was bought by Mr. M. on Saturday. He ate the ham on Sunday evening. One hour after partaking of it he had violent cramps and felt very weak. This lasted till the next day. The fourth slice was used in his own home. The greater part of the ham was eaten by one of his girls, 18 months old. After eating it, the child took sick and died within four days.

The following history was obtained: Louise S., 18 months old, according to the statement of the parents, was healthy and lively until the 18th of August, 1912. At 2 p. m. of that date the child ate the greater part of the slice of ham. At 5 p. m. when the mother returned from a walk with the child, she noticed the girl began to limp on the left leg and was soon unable to walk. She had to be placed in a chair. The next morning she was feverish and cried. The mother gave her castor oil. The bowel movement, which was green, had a very bad odor. The same day the child seemed to be in a stuporous condition. The legs, which were at first slightly stiff, later became as if paralyzed. On Tuesday the mother thought the child was in convulsions. The eyelids were wide open and the eyeballs turned in all directions. There was marked twitching of the muscles of the mouth. The left leg was paralyzed, while the right leg and both arms jerked continuously. The child was talking when she was well, but after eating the ham, she could not talk and was in an unconscious condition till Wednesday; the latter part of the week she died.

The post-mortem examination performed by their physician (J. W. T.) showed that there were multiple abscesses in the myocardium. The spleen was enlarged and abscesses were present. The kidney also showed abscesses. The intestines were not examined, but they seemed to be normal. The pathologic diagnosis of the tissues examined showed multiple abscesses of the lungs and spleen.

Pathologic diagnosis.—Septicemia with multiple abscesses of the organs previously examined.

The father stated that after the complaints of the people to whom he had sold the ham he became suspicious and ate a piece of it. On Wednesday, while running after a physician, he noticed that he could not run as fast as usual. He, however, paid no attention to it. On Thursday he began to have cramps in the left leg, and on Friday he noticed the same effect in the right leg.

He brought the rest of the ham to the State Food Commission for investigation. The freshly cut surface of the ham showed areas of discoloration. No distinct odor of souring was present. Smears were made of these areas and stained. Streptococci and bacilli were present. Some of the muscle fibres were degenerated.

The bacilli would not grow under aerobic conditions, in boullion, agar agar, or blood serum. Inoculations were made in ham-egg media. Under aerobic conditions, motile bacilli developed but no streptococci. The latter, however, grew well aerobically on lactose boullion, blood serum and gylcerin potato. The following experiments were performed in order to ascertain the nature and virulence of the poisonous material:

EXPERIMENT I.

Infusion in salt solution was made of 15 gms. of suspected meat. In order to see the difference between raw and boiled ham, half of the ham infusion was boiled. Six rats were starved for 24 hours, after which they were given the following: (a) one pair of healthy white rats were fed with the boiled ham infusion; (b) another pair of similar white rats were fed with the raw ham infusion; (c) a third pair of rats, used as controls, were fed with ham from a different source; (d) two sets of rabbits and rats were inoculated intraperitoneally with 2 c.c. of the infusion from (a) and (b).

Results—After six hours all the rats from (a) and (b) began to assume a stuporous condition. They kept their heads buried beneath their front legs, the hair of their skin stood erect like that of a porcupine. They remained in that position for about 24 hours. When forced to move they resumed their former posture. After 24 hours they began to show more life and drank freely water which was given them. The control rats were lively and enjoyed a good appetite for more ham. The animals from (d) showed similar conditions as (a) and (b).

EXPERIMENT II.

The surface of the ham was singed with a red hot spatula, and about 1 c.c. of ham was cut out with sterile instruments. These were inoculated in ham-egg media, lactose bouillon and plain bouillon, and were subjected to aerobic and anaerobic conditions. (a) A gram-negative very motile bacilli developed in the anaerobic ham-egg media; (b) a streptococci developed in the aerobic lactose bouillon media. From (a) half of the liquid was heated to 86 degrees. One rabbit and one white rat were inoculated intraperitoneally with 1½ c.c. of the heated liquid media of the 24 hour living culture of ham-egg. A similar amount was inoculated with the unheated media in a rabbit and a rat.

After inoculation they showed a tendency to convulsive movements. They soon became stuporous, refused to take food and remained in one position for about three days. Both rabbits recovered in a few weeks. One rat died within five days after inoculation. Before dying it had convulsions and turned over many times on its back, as if it suffered from meningeal conditions.

Post-mortem examination right after its death showed small pin point abscesses and hemorrhage in the lungs. Part of the small intestines were gangrenous. There were abscesses and cyanosia of the kidney.

EXPERIMENT III.

A 24-hour aerobic culture of lactose bouillon showed streptococci. A white rat was inoculated intraperitoneally with 1 c.c. of that culture. In about an hour the rat became stuporous. The hind legs were paralyzed. The next day the rat died.

Post-mortem examination showed pneumonia of the right middle lobe and abscess formation, also congestion and pneumonia of the posterior part of the left lung. The peritoneum showed marked evidence of inflammation, the intestines were adherent. The kidneys were cyanotic and there were hemorrhages in the testicles. The streptococci were isolated from the abscesses and the heart's blood.

As controls to study the virulence of these organisms, two other rats were inoculated, one with a virulent streptococci, obtained from a blood poisoning case, and the other with a very virulent culture of the pneumococcus. Both of these rats died within eight and ten hours, thus showing the comparative virulence of all the cultures.

EXPERIMENT IV.

Pieces of ham from distant parts of the cut surface were fed to another series of rats. The further away from the cut surface they were, the less they seemed to affect the rats thus fed.

Effects of Eating Diseased or Decomposed Meat or Their Products by Healthy or Sick People.

When a strong and healthy person eats of decomposed or decayed food, he gets what is known as acute indigestion. Frequently this is accompanied by diarrhea, which is Nature's attempt to expel poisonous products.

However, when a sick person, whose bowels and stomach are already sluggish or don't work at all, partakes of the above food it remains in the stomach long enough for the poisonous products to be absorbed. The patient suffers from a condition known as ptomaine poisoning. Still greater is the effect when these unfortunate people, in order to relieve their distress or pain, must have resort to patent cough medicine, which contains opium and paralyzes further their stomach and bowels.

The Effect of Opium in Certain Diseases.

While in the hospital, and since then, I had the opportunity to study patients, who complained of indigestion. When they came to post-mortem examination the stomach and bowels contained many ulcers. These patients did not complain, because they used opium in some form to relieve their pain.

Patients with severe pulmonary tuberculosis or bronchitis, etc., seldom complained of the original cause. All they usually ask is to be relieved from stomach or bowel troubles. The patent medicine, which they use, contains opium, paralyzes their stomach and bowels and upsets their gastro intestinal tract, which gives rise to indigestion.

I have seen very severe cases of tonsilitis, even with abscesses, in which there was little pain or no discomfort. The reason they came for medical advice was that whenever they looked in their mouths they saw white spots, or the tonsils were so enlarged as to interfere with their swallowing. The reason they felt no pain was that they used patent cough medicine to relieve it.

As a rule, people suffering from the above conditions swallow some of the sputum, or putrid contents of the throat, which greatly upsets their stomach and bowels. The addition of patent cough medicine, containing opium, still further paralyzes their stomach and bowels. If these people partake of decomposed or diseased meat it will remain in the stomach. The stomach acting as an incubator will favor the development of bacteria and their poisons, which if absorbed gives rise to various toxic symptoms and even to general infections.

The Effect of Opium in Contracting Certain Diseases.

In 1883, Dr. Robert Koch discovered the bacteria that caused Asiatic Cholera. Many attempts have been made by him to produce cholera in animals, either by feeding or inoculating them, but these failed. He neutralized the acid contents of the stomach with sodium carbonate, then fed the animals and introduced with it a few drops of a 24-hour living culture of the cholera bacilli. In order to paralyze the stomach and bowels or to control the peristaltic movements he introduced 1 c.c. of tincture of opium into the abdominal cavity. The following day the animals showed signs of indisposition and weakness, and with apparent paralysis of the posterior extremities. Within forty-eight hours death occurred with the typical symptoms of cholera.

What Did He Establish?

He proved as long as the animal had a normal physiologic function of its stomach or bowels the disease could not be produced. But as soon as he paralyzed the movements of the bowels, the animal contracted and died from cholera. Why? Because the stomach being paralyzed, the gastric juice, which usually destroys bacteria, was neutralized; the stomach with the temperature of the body acted as an excellent incubator for the growth, multiplication and development of the bacteria and their poisons. The poisons of cholera are so effective that a few drops of a young virulent culture kills a guinea pig in a few days.

Feeding or Inoculating Animals With Diseased Meat or Their Products With Opium and Without Opium.

The last few months I had the opportunity of testing, while examining tainted food products, their effects on animals. For I cannot do my work without testing the deleterious or poisonous food properties upon animals, in order to protect the people from similar effects. When I feed the animals with the food in question they get sick; sometimes they recover and sometimes they die. When I feed or inoculate an animal with a certain amount of food or their ptomaines, and another animal of the same size and weight with a similar amount of the same food, but with the addition of cough medicine or an equivalent amount of opium the result is amazing. The animals that receive the opium invariably die within a few days with badly diseased stomach and bowels. Those that do not receive the opium either recover or die within a week or two. Some of the animals that received the opium lived longer than a week. On post-mortem examination general peritonitis was present. The meat products fed to these animals contained gas producing bacteria. The bowels being paralyzed, are easily distended with gas. This favors the entrance of bacteria in the abdominal cavity and infection usually follows.

Molds and Fungi, Characteristic Diseases They Produce.

Molds and fungi are classified in three great groups. I. Phycomycetes (algae fungi). II. Ascomycetes (sac fungi). III. Basidicomycetes (basidial fungi). According to recent statistics, there are about 47,000 species of these fungi. There are 200 in the first group, 29,000 in the second group and 18,000 in the third group. Nearly all of the second group and about 4,000 species of the third group are parasitic upon plant life.

What is a Parasite?

The presence of coloring substance or chlorophyl in the lower forms of plant life, such as algae, indicates their ability to manufacture their own food. But fungi and molds have no chlorophyl. They, therefore, derive their food as parasites from living plants and animals, known as hosts or victims. Those fungi that can live upon dead products of animals or plants are known as saprophytes. These habits are changeable, depending upon the source of food supply. The parasitic fungi attack the seedling, the root, stem or leaf. Their victims range from the smallest blade of grass to the giant trees of the forests.

Space does not permit the enumeration of all diseases of plant life produced by fungous parasites. I will try to mention the principal diseases which we frequently see: Of the

first group, the algae fungi produce Brown Rot on lemons, which at one time nearly threatened the entire industry. Downey Mildews of the grape and cucumber are of great economic importance. These fungi attack first the older leaves and then the disease spreads to the vines. Once the disease is thoroughly established very few cucumbers are produced.

The second group of fungi—the sac-like fungi—is most destructive to plant life. Their distribution is very great, and their destruction to crops have a great economic importance.

The loss due to Brown Rot of Stone Fruits in the year 1887 in Maryland and in Delaware alone, the extent of the injury resulting in a shortage of the total crop, was estimated at 800,000 baskets of peaches (Erwin F. Smith). In 1900, the loss of peaches and plums in Georgia was 40 per cent of the total crop. This would mean a loss between $500,000 and $700,000 for that state alone.

Apple Scab and Pear Scab.

These fungi attack fruits and leaves, stalks, flowers and twigs. Usually it forms scabby spots upon the entire fruit. In some varieties of pears, cracks and fissures develop which extend nearly to the core. In a season favorable to the fungi the loss in many sections of the country amounts to a reduction in price or the total destruction of from 25 to 50 per cent of the entire crop.

The most destructive apple disease is bitter rot. This fungus is widely distributed throughout the United States. The loss sustained by the apple growing industry in 1900 was estimated to be $10,000,000. In the same year a loss in four counties in Illinois amounted to $1,500,000. These fungi chiefly affect the fruit.

The most common disease produced by the third group is loose smut of the oats, wheat, corn and onions. The various rust diseases of the clover, beans, beets, grain and the root and stem rot fungus of these groups affecting potatoes, beets, etc., are of great economic importance.

Tomato Ketchup.

The tomato is a fruit and contains some nourishing material. It is subject to infection by molds, yeasts and bacteria. The diseases common to the tomato are: Sleepy disease or wilt, stem rot, fruit rot, blight, etc. These bacteria or molds may live as parasites upon the nutritive material and may produce poisonous substances, or they act as saphrophytes, and reduce the food material to decomposition products. Sometimes these products, if eaten in considerable amounts, will give rise to conditions known as ptomaine poisoning.

Ketchup or any product made from decayed or decomposed tomatoes has no food value, and may contain deleterious or poisonous substances. A ketchup made of such products is nothing but refuse and fit for the garbage can. The sale of such products should be prohibited.

The Objects and the Methods of Bacteriologic Examination.

Ketchup has very few or no yeasts, molds or bacteria if made from sound and ripe tomatoes, and if the process has been subjected to sanitary conditions. But the presence of a large number of dead molds, yeasts or bacteria indicates that the tomatoes were decayed or decomposed before or during the process of making the ketchup. The presence of living bacteria even in smaller numbers is, to my mind, more deleterious, because the tomatoes must have been infected with spore-bearing bacteria, which resisted sterilization; or infection took place after sterilization or boiling. These bacteria mutiply and continue to produce deleterious substances, and at the same time reduce the food value of the ketchup.

Estimation of Bacteria, Yeasts and Molds.

These methods have given me the most satisfactory results. One is used by A. E. Wright in estimating the number of bacteria in a bacterial emulsion intended for vaccines. The other is the one used to determine the number of red and white blood cells.

Since bad ketchup must be condemned, and the methods of investigation might be questioned in court, I use every possible aseptic precaution. Each bottle of ketchup is first shaken to distribute evenly the contents. The cork is removed with a cork-screw, which is being sterilized for each bottle. One cubic centimeter of the contents is removed with a sterile pipete and placed in ten or a hundred cubic centimeters of sterile saline and citrate. The latter facilitates an even distribution for making smears. The diluted ketchup is first shaken and then allowed to stand for a few minutes in order that the coarse particles may settle.

For Wright's method of bacterial determination, I use a capillary pipete, and take up equal parts of the diluted ketchup and freshly drawn blood from the finger. This is well mixed, and smears are made and stained with Wright's blood stain. Then the ratio is determined between the number of red blood corpuscles and the bacteria.

Assuming 5,000,000 red blood corpuscles to a cubic millimeter of the blood, the number of bacteria per cubic millimeter is determined. A round covered glass is marked in squares with a wax pencil and placed in the eye piece. The objective used is an oil-immersion. The number of red cells and bacteria seen within the squares are counted in different parts of the slide till twenty or more fields are examined.

In the counting of living bacteria I use Thomas Zeiss blood counting chamber, Spencer's 4 m. m. objective and 12× ocular. I use the artificial light. It enables me to study the living bacteria by observing their motility, which is either by flagellae or brownian movements. This also excludes the possibility of counting small particles which may be mistaken for cocci. A good light is obtained from a Welsbach lamp, and by allowing the light to pass through a wash bottle containing a weak copper sulphate solution.

One cubic centimeter of ketchup is taken as before and introduced in ten cubic centimeters of sterile saline and citrate. A few drops of carbol fuchsin is added to make the bacteria more prominent. A drop of this diluted ketchup is examined and if too many bacteria are found in each field it is further diluted by means of a red blood pipete. A drop of this ketchup is placed on the counting chamber and covered with a very thin cover glass and allowed to remain for a few minutes to permit the particles to settle.

The number of bacteria found in the 400 squares are noted. Then the number of yeasts and molds present in the same number of squares are also counted. In order to get an average the process is repeated a few times. The rest of the calculation is simple. Since each little square represents .1 m. m. in thickness or 1/4000 cubic millimeter, the product is determined by this formula:

Number of bacteria × the dilution × 4000 (the product of all the squares), divided by 400 squares counted, will equal the number of bacteria in a cubic millimeter. Multiplying this by 1,000 will give the number of bacteria in one cubic centimeter of ketchup.

Canned Peaches Examined.

No. A. 331. The cover of the can was nearly destroyed by rust. When open the can was half full. The odor escaping was pungent sour. The fruit was covered with green molds, etc. Direct stained smear showed the presence of yeast and bacilli. The latter was very motile. Some diplococci were also present. A culture on milk, boullion, etc., developed yeast, streptococci, motile bacilli.

Result: Putrid, filthy and unfit as a food.

No. A. 333X. The can when opened had an odor of fermented material. It was somewhat sour. The fruit seemed to be fairly well preserved. On testing it gave an acid taste. Not adulterable. Very few bacteria present. The can had collapsed, perhaps it did so after it was heated to expel gas.

No. A. 332. Gas escaped when this can of peaches was opened; it produced a hissing sound. The odor was sour, cider like. While the fruit seemed to be fairly well preserved, it was soft on handling and had a characteristic pungent taste.

Result: Adulterated and unfit for food.

Water Examined.

No. A. 213. Drinking water. Bacilli of the typhoid colon group present. Water is contaminated with sewage. It should not be used for drinking unless boiled.

No. L. 151. Cistern water from Roy, Virginia. Unable to count colonies; about 1,000,000 were present. Organisms of bacilli coli group were present.

Water unfit to be used for drinking or washing purposes.

No. L. 150. Well water from Roy, Virginia. Typhoid bacilli were demonstrated in this water.

Should not be used for drinking purposes.

No. 152. Cistern water of Staumbough, Virginia. A bacteriological examination shows this water to contain 94,000 bacteria and molds per c.c. Organisms of bacteria coli group were present.

Water is unfit for drinking or other purposes, unless it is boiled before using.

No. L. 153. Sewage water from Roy, Virginia. This water contains over a million bacterial colonies per c.c. Bacilli coli organisms predominate. No typhoid bacilli demonstrated.

No. B. 137. Rockford water from faucet. No typhoid.

No. B. 136. Water from well. No typhoid.
No. B. 138. Rockford water from reservoir. No typhoid.
No. C. 173. Well water, contains bacilli coli, sewage contamination.
Result: Water should be boiled before using.

Milk.

Milk is the most important food product, and is the only infant food. It is used a great deal by sick people as well as those in good health. It is also one of the best culture media (or food), except blood, for most all bacteria. While some bacteria will not grow on many substances, they will readily develop and multiply in milk and produce poisonous products characteristic to each group of bacteria.

Milk as a Carrier of Infectious Diseases.

That milk is a carrier of infectious diseases is universally established. Many epidemics, as typhoid, diphtheria, scarlet fever and tuberculosis, have been traced to milk, where the causative bacteria were demonstrated. Last year the city of Chicago had an unfortunate experience with an epidemic of sore throat. The streptococci or the bacteria causing the infection were repeatedly found in certain milk.

Some of the Routes of Milk Infection.

If the cow, or particularly the udder, is diseased, the milk will contain bacteria. Bacteria may gain access after the milking. This is due to unsanitary conditions of the stables, the flanks of the cows or the presence of flies which may get into the milk.

If people with sore throats, bronchitis or tuberculosis should happen to expectorate or cough while milking, the bacteria causing the disease would have a favorable opportunity to multiply and infect those that drink the milk. Hot weather is favorable for the growth of bacteria, if they gain access to the milk.

From the above we can appreciate the importance of milk as food and as a carrier of infectious diseases. Every possible precaution must be taken in supplying milk, particularly to infants and children. During the period of infancy and childhood, children as well as the young of animals are most susceptible to infectious diseases.

Milk Examined.

No. A. 210. No typhoid or colon bacilli present.
No. A. 243. No tubercle bacilli or pus producing organism.
No. A. 235. No tubercle bacilli or pus producing organism.
No. A. 242. Milk from antinomycosis cow.
No. 247. No tubercle bacilli or ray fungus present.
No. A. 211. No typhoid bacteria present.
No. C. 3. There are 300,000,000 bacteria per c.c. and staphylococci.
Results: Filthy and unfit for food.

NATIONAL WEIGHTS AND MEASURES CONFERENCE.

The first meeting of the national weights and measures conference was held the latter part of November in St. Paul, Minn., and reports from that city say that the sessions were well attended. The meeting was of three days' duration, and representatives from retail grocers' associations and box manufacturers were present and took part in the deliberations.

The resolutions committee was composed of the following well known men: Dr. Fritz Reichmann, director of the bureau of standards of New York; J. M. Otterness, deputy food and drugs commissioner of South Dakota; Edwin F. Stimpson, superintendent of weights and measures of Kansas; J. Q. Emery, dairy and food commissioner of Wisconsin; Fred Dowling, chief inspector of Wisconsin; J. C. Conners, member of the national committee of tolerances of Massachusetts; C. C. Neale, commissioner of weights and measures of Minnesota.

The above committee drafted the following resolutions, which were indorsed by the conference:

"1st. That the chairman of the resolutions committee, C. C. Neale of Minnesota, shall prepare a list of weights per bushel now in ordinanry use as legalized by a majority of the state or by the Federal Government. He is to send said list to each member of the committee for criticism, suggestion or correction, as the case may be, and from this prepare a final draft for standards per bushel recommended by the conference of weights and measures called by the state of Minnesota.

"2nd. That, except as otherwise provided, no person shall sell, offer for sale or give away containers for the distribution of berries or small fruit unless the same are of the capacity of 1 quart, 1 pint or ½ pint or multiples of a quart standard dry measure or in containers as above specified. The possession of such containers shall be presumptive evidence that the same were intended to be used.

"3rd. That the main features and underlying principles of Chapter 81, Laws of 1912, State of New York, are hereby indorsed, and that effort be made to have a law with similar features universally adopted among the states.

"4th. That all weights and measures officials shall be under a competitive civil service regulation.

"5th. That the fee system in weights and measures work is wrong, and that this convention is unalterably opposed to the fee system."

Chapter 81, Laws of 1912, of New York state mentioned in the preceding resolution is in part as follows:

"Guaranty furnished by wholesaler, jobber or manufacturer. No person shall be prosecuted under the provisions of this article, following section fifteen thereof, when he can show a guaranty signed by a wholesaler, jobber or manufacturer, residing in the state of New York from whom he purchased the commodity in containers to the effect that they were not incorrectly marked within the meaning of such sections of this article. The person making the sale and guaranty shall then be amenable to the prosecution, fines, and other penalties which would in due course attach to the dealer under the provisions of such sections. The name appearing on the container and the marking as provided by section seventeen shall be deemed to constitute a guaranty.

"Commodities which appear as a unit in the state of nature may be sold either by weight, measure or count. As an illustration: eggs may be sold by the count or by the dozen; comb honey may be sold by the comb; but where the container containing these individual units contains more than six, it must be marked, for instance, egg carriers, if there are over six eggs in the carrier, must be marked with the number of eggs contained therein, in letters at least half as large as the largest printing on the side or top of the packages on which the indication appears, or where no other printing is present, in letters at least one-fourth of an inch in height.

"Hams, bacon and smoked or cured meat products must be sold by net weight by the retailer to the consumer.

"The wholesaler or packer must sell such meat products by net weight and on wrapped meat products the wholesaler or packer shall mark the gross and tare weight. This shall be marked so that the tag or label or part thereof which bears the gross indication is removable or detachable, whereas the tag or label or part thereof indicating the tare weight is non-removable or permanently attached to the wrapping or marked upon the wrapping.

"The lettering shall be at least one-eighth of an inch in height, bold-faced letters. A variation of one and one-half per cent in weight will be allowed.

"The above regulation will require the retailer, when he keeps the meat in stock for any length of time, to remove the gross weight tag and reweigh and sell by the actual weight delivered to the consumer.

"Goods sold in retail must, according to section 16 of chapter 81, Laws of 1912, be sold by definite representation of weight, measure or numerical count. They must be marked on a label, tag or slip attached thereto or accompanying them with statement of the amount supposed to be delivered; such amount being stated in terms of weight or measure or count, and in agreement with the regulations established under the statute."

CHICAGO AUTOMOBILE SHOW.

The Chicago Automobile Show is announced to be held in the Coliseum and First Regiment Armory, Chicago, February 10 to 15, 1913. This Show is one of the most interesting events of the winter, and is always looked forward to with pleasurable anticipation by thousands of people.

The management of the Show this year is planning some exceedingly effective decoration schemes, and there is no doubt but that the results will be decidedly artistic. Brilliant illumination is one of the most conspicuous features of an automobile show, and in this respect the 1913 Chicago Show will not be behind any that have been held.

There will be more than a hundred exhibits of passenger cars, nearly as many commercial cars, and from 300 to 400 exhibits of automobile accessories. Every owner of a car, or person who contemplates the purchase of an automobile will want to attend this Show.

The Washington Point of View.

By Our Staff Correspondent.

WASHINGTON, D. C., January 11, 1913.—As the Wilson administration continues its preparations for taking hold of the Government on March 4, Washington is full of rumors as to cabinet positions. Easily the most laughable thing in this connection is the ludicrous efforts of Dr. Wiley and his friends to persuade President-elect Wilson that Wiley should sit in the Wilson cabinet as Secretary of Agriculture. Democratic senators and politicians scoff at the suggestion. One of them remarked: "Wiley has stung two Presidents and is entirely capable of stinging a third if he gets the chance." Those who know Wiley well say that he himself has no idea that he can secure the position, but, being out of office and desperate because he is not receiving the newspaper notoriety to which, as chief chemist, he had become accustomed, has seized on the mention of his name as a cabinet possibility as desirable advertising. It is not likely that the Democratic party will honor with a cabinet position such a recent convert to Democracy. Some months ago Wiley was quoted in the *World's Work* as saying that he considered Democracy synonymous with rebellion. True, the Doctor attempted some campaign work for Wilson. He issued a pamphlet attacking Taft, Secretary Wilson, and Solicitor McCabe, but his fulminations did not arouse any enthusiasm.

The fact is that Wiley's clever attempt to make it appear that he is the disinterested champion of the plain people has been exposed so often that intelligent people see through his pretentions and recognize that in every fight which he has waged millions were at stake. To illustrate:

For political or other purposes, Dr. Wiley denounces the use of alum. It occurs principally in baking powder. There are two kinds of baking powder on the market, those which contain alum and those which do not, and for years there has been a bitter trade fight between the rival manufacturers. So far as the powders containing alum were concerned, Dr. Wiley, although he had made no experiments regarding the properties of alum, insisted *that its use be forbidden first, and its properties be investigated afterwards,* which would seem to the average man a procedure lacking both in sense and fairness. Dr. Wiley was overruled in his contention by the administration, and the matter referred to the Referee Board for investigation, but note the sequel. When it was discovered that certain non-alum baking powders and which competed with alum powders on the market contained lead, a cumulative poison, Dr. Wiley changed his attitude from that of a harsh judge to a friendly counsellor and adviser. On this subject the official records of the Department of Agriculture show:

(1) That when Dr. Wiley was informed by his subordinates of the poisonous content of a certain baking powder (not alum), he directed that a dummy proceeding should be begun, but that regardless of the evidence adduced, no prosecution should ensue;

(2) That when the manufacturer of the adulterated food appeared, Dr. Wiley advised him that his food contained, to quote Wr. Wiley's words, "lead, a known poisonous body with cumulative properties."

Knowing the drastic action which the Doctor wished to take against food which contained alum, a substance upon which the scientists disagreed, this manufacturer of the food which contained a recognized poison, must have shuddered when he thought of the fate which awaited him at the Doctor's hands, but he need not have been frightened, for the official records of the department show that, in a kindly way, the Doctor, speaking of the cumulative poison, said: "We shall endeavor to minimize its use as far as possible; we are doing it in a sympathetic way, in a collaborating way." Where was the Doctor's boasted regard for the stomach of the American people?

It was ever thus. Dr. Wiley has never yet taken a strong position in the enforcement of the food and drugs act where his position would not redound to the immediate financial benefit of a wealthy group of manufacturers.

It was so in the whisky case, where by his decision Dr. Wiley attempted to give a monopoly of the term "whisky" to the manufacturers of one kind of whisky.

It was so in the benzoate of soda case, where Dr. Wiley, after his decision had been overthrown by the investigation of the most eminent body of scientists in the United States, persisted in disseminating his own discredited views, which were made the basis of a huge advertising campaign by a certain manufacturer of food products.

It was so in the baking powder fight. If the alum powders had been eliminated from the market, as Dr. Wiley attempted to accomplish by his decision, the competing powder, practically controlled by one company, would have been enabled to tax the people of the United States in the modest additional sum of forty million dollars per year.

In his published attack upon the administration of the pure food law, Dr. Wiley denounced alleged attacks upon the poor man and protection of the rich, but from his record, it appears that in every pure food fight which Dr. Wiley has waged, millions were at stake and would have been garnered if his decisions had been sustained. Unfortunately for those interests which Dr. Wiley's decisions favored, they were reversed.

It is undoubtedly true that the food and drugs act has been vigorously and effectively enforced from the beginning. The act became effective January 1, 1907, and from that date over four thousand cases have been transmitted to the department of justice for action. In practically all concluded criminal cases convictions have been secured. In seizure cases decrees of condemnation and forfeiture have uniformly resulted. The number of cases referred to the department of justice has been increasing from year to year. During the year ending June 30, 1912, between fourteen and fifteen hundred cases were referred to that department. The number of cases reported to the department of justice is so large that it has been found necessary for the United States Attorneys in some of the large judicial districts to make up special calendars of food and drug cases and set aside several weeks exclusively for the trial of these cases. The maximum fine has been imposed in several instances, and in some cases jail sentences have been imposed. No leniency has been shown defendants who have shipped goods which contained ingredients which were deleterious to health, or which consisted of a filthy, putrid or decomposed vegetable or animal substance.

The government has insisted that decrees of condemnation and forfeiture be entered in all cases where the goods have been seized and in cases where the goods were filthy, putrid or decomposed, or contained ingredients which were deleterious to health, the food has been destroyed. Cases have been based on all kinds of adulterated foods and drugs, regardless of the wealth or prominence of those responsible. The greatest activity in the prosecution of violators of the food and drugs act has been displayed during the past four years. More than one thousand cases have been successfully prosecuted since March, 1909. Since that date fines amounting to $30,000 have been assessed against defendants in criminal cases, with costs of equal or greater amount, and decrees of condemnation and forfeiture have been taken against more than 500 shipments of foods and drugs.

Reports received by the Bureau of Chemistry from its laboratories in different sections of the country show conclusively that the successful prosecutions of violators of the food and drugs act have produced a marked improvement in the sanitary condition of factories and in the quality of foods and drugs which are shipped in interstate commerce in this country. It is reported, for example, that the use of harmful preservatives in foods has been largely discontinued; that the number of shipments of flour bleached with nitrogen peroxide has been considerably reduced; that mixtures of flour are properly labeled so as to inform consumers of the ingredients of the mixture; that cheese made from skimmed milk is labeled as such; that coffee is no longer adulterated with peas, chicory, cereals, and other foreign material; chocolate and cocoa no longer contain flour and shells; that spices are generally free from inert materials having no condimental value; that flavoring extracts are sold for what they are; that mixtures of cane syrup flavored with maple are no longer offered for sale as maple syrup; that cotton seed oil is not now marketed as olive oil; that candy manufacturers are discontinuing shellac coatings; that shipments of cheese are correctly branded as to weight; that evaporated milk is sold as such and not as evap-

orated cream; that domestic wines are no longer disguised by foreign labels; that foods in general are practically free from filthy and decomposed substances; that the habit-forming drugs specified in the act are indicated on the labels of medicinal preparations, and that the quality of crude drugs is greatly improved.

Recently the department, by executive order, has prohibited the importation into, or the manufacture in, the United States of absinth, on the ground that it is dangerous to the health of the people of the United States.

It is with the full knowledge of these facts—facts which show conclusively the food law has been rigidly enforced—that Dr. Wiley has continued his campaign of misrepresentation not to give it the harsher name that might warrantably be applied, the object being to convince the public that he is the only honest man interested in pure food. Such a course can hardly be expected to appeal to President-elect Wilson. He is reputed to be a keen judge of men and motives, and it does not require an acute mind to discern that the first requirement for a cabinet officer is freedom from bias and at least an ordinary state of mental honesty. Even a cursory glance at Wiley's record cannot fail to convince a thinking man that he is long on the former and entirely without the latter attribute.

The fact is that if Dr. Wilson wishes to fare well in his administration of the food and drugs act he probably could not do better than to forbid the mention of Wiley in the department of agriculture and issue an order requiring Dr. Alsberg, the new head of the chemistry bureau to attend strictly to the business of fitting himself to be an expert witness for the government in whatever cases it may be necessary to bring, if it should so fall out that the Doctor does not fully understand that that is all the chief chemist has to do with the enforcement of the law. It is no part of his business to say whether a man should or should not be prosecuted. That is a pure question of law or of policy and all the chemist can do is to keep within the scope of his employment and bring forward the facts that will sustain the prosecution.

Dr. Wiley never did that; he was too busy talking. He doesn't get the free advertising now he did then, so he has taken to the expedient of writing letters to editors. Otherwise his name might not appear in the public prints at all. He has already condemned Alsberg, saying he is a good enough chemist, but not at all in sympathy with the enforcement of the law. Under Wiley there was too much sympathy and not enough facts, as a reading of the Coca-Cola case will disclose.

Letter From Indiana

By A Staff Correspondent.

INDIANAPOLIS, Ind., Jan. 13.—Coincident with the completion of the draft of the model cold storage bill by the committee of experts, appointed by the American Association of Food, Dairy and Drug Officials at Duluth, there came in Indiana a public demand upon pure food officials for their interpretation of the Indiana cold storage bill, which never before has been thoroughly construed. After an exhaustive inquiry into the cold storage conditions in Indiana, with a view to determining particularly the number of cases of cold storage eggs held by storage houses, H. E. Barnard, state food and drug commissioner, declared that hereafter he would compel a construction to be placed on the Indiana law, which will force all stored products onto the market at the expiration of the nine-month limit, set by the Hoosier law.

Much discussion had been occasioned here during the recent egg famine as to the reason state officials were giving for not forcing all nine-months-old eggs onto the market, thus effectually breaking up any attempts at corners that the egg brokers might be contemplating. The state department for a time replied that the law should be interpreted to force the eggs and similar products on the market at the expiration of the nine-months period only when the market would sustain such an outburst of storage products. In other words, under the Indiana law, an inspection at the end of nine months of all cold storage products is mandatory. If such products are found wholesome, the commissioner contended that he saw no reason for forcing them onto the market.

He finally announced, however, that hereafter whenever products had been stored for nine months they would be ordered placed on the market immediately. The "model" law raises the storage limit from nine months to one year and the state official is of the opinion that the Indiana law should be changed to the same conditions. It is not believed, however, that such an attempt will be made at this session of the legislature, which convened January 9.

The "model" storage bill will be introduced into about forty state legislatures this winter. It provides that storage companies shall report to state boards of health or other similar officials as to the amount of storage goods on hand and their condition every three months. It also provides that persons handling cold storage products shall placard their wares, so that buyers may know it is cold storage wares they are purchasing.

The committee from the American Association of Food, Dairy and Drug officials included Mr. H. E. Barnard, who was chairman; W. B. Barney, state food commissioner of Iowa; Dr. M. E. Jaffa, state chemist of California; Dr. R. B. FitzRandolph, state chemist of New Jersey; Dr. M. E. Pennington, chief of the food research laboratory of the United States Department of Agriculture.

Six persons were prosecuted successfully in Indiana during December by the state food and drug department for selling dirty milk. Another prosecution was against Thomas Hall of Lebanon, the veterinarian, who fed his drove of hogs on the carcasses of dead animals. According to the monthly report of the state food and drug commissioner, the total fines assessed against the seven offenders reached $137.50.

Those prosecuted, in addition to Hall, were John Hines, John Fry, John H. Clevenger, Ollie Jones and Marion Reed of Muncie and Joseph Webster of Marion. Thirty-eight food-handling establishments were condemned in the state during the month because they were unsanitary or improperly constructed. Of the number three were bakeries, seven were meat markets, five were grocery stores, four were grocery store and meat markets, five were restaurants and hotels, while slaughter houses, confectioneries and fish markets made up the remainder.

A total of 1,052 inspections of such establishments were made during the month. Grocery stores figured heavily in that total, 413 of them being inspected. Nineteen of the establishments inspected were rated "excellent," 624 as "good," 383 "fair," twenty-five "poor" and but one "bad." For many months there has not been such a dearth of "bad" establishments inspected.

The one "bad" establishment was a grocery store. Nine grocery stores and seven meat markets were declared "poor." The results of the analyses of foods and drugs made at the state laboratories during the month showed that twenty-two samples of foods were declared illegal out of a total of thirty-nine examined. Nineteen of the illegal samples were milk. A cough remedy was found illegal.

The Sixty-eighth General Assembly of Indiana is in session in Indianapolis and it now appears that very little tampering with the pure food laws as they now exist will be done. The state department desires no changes of particular consequence in the pure food laws. A bill may be introduced seeking to establish a net weight law, by which all small fruits would have to be sold in the state by weight instead of by measure. The sealer of weights and measures of Indianapolis is said to have a bill or two ready for introduction, but they have not been made public.

MEMBERS OF TRADE PRESS TO HOLD MEETING.

The fourth annual convention of the Grocery and Allied Trade Press of America will be held at the McAlpin Hotel, New York City, January 27-28-29. The president of the organization is making every effort to insure this coming meeting being the biggest and best ever held, and a splendid program has been prepared. All of the leading manufacturers of food products and salesmen and advertising men identified with the grocery trade are to be invited to be present, and every possible phase of trade press interests will be discussed by authorities from all over the United States.

FOREIGN FORTIFIED FRUIT JUICES MUST BE LABELED.

The Board of Food and Drug Inspection has expressed the opinion that a fruit juice which has been fermented should be labeled to indicate that fact, also if there is any added alcohol present the fact should be stated on the label. Practically all imported fruit juices are fortified to some extent with alcohol, and the opinion was given out for the benefit of importers of these fruit juices. The requirements in this respect will not be enforced until February 1, thus giving importers a reasonable time in which to make the necessary change of labels.

BOOK REVIEW

Laboratory Hand-Book for Dietetics. By Mary Swartz Rose, Ph. D., Assistant Professor, Department of Nutrition, Teachers' College, Columbia University.

Students of dietetics will find this volume of great assistance to them in their laboratory work. Investigations into the quantitive requirements of the human body have progressed so far as to make dietetics to a certain extent an exact science, and to emphasize the importance of a quantitive study of food materials. It is the purpose of this hand-book to explain problems involved in the calculation of food values and food requirements, and the construction of dietaries, and to furnish reference tables which will minimize the labor involved in such work without limiting dietary study to a few food materials.

Only brief statements of the conditions affecting food requirements have been made in this book, the reader being referred to general text books on the subject of nutrition for fuller information, but such data have been included as seem most useful in determining the amount of food for any normal individual under varying conditions of age and activity.

The volume contains an appendix giving a description of the necessary equipment for a dietetics laboratory, with a diagram for the floor plan and a complete list of articles required for work.

(The Macmillan Company, New York City; 127 pages; cloth; $1.10 net.)

YANKEE CANNED GOODS ABROAD.

The Bureau of Foreign and Domestic Commerce at Washington is about to issue a monograph dealing with the foreign trade in all kinds of canned foodstuffs. The consuls reporting on the subject are for the most part of the opinion that American canned food products are well able to hold their own in most foreign markets. Some lines of American goods are the standard wherever sold.

Canned meats from the United States have fully recovered the ground lost at the time packing house methods were brought into question in this country. This is especially true of England, which has always been the heaviest buyer of such goods. It is said that the pure food label now required on canned goods put up in the United States has been of much assistance in restoring the confidence of the foreign consumer in American canned meats.

California canned fruits are especially favorably known abroad. Practically all the competition these fruits meet is kept alive by the fact that the American product is sold at higher prices than its rivals. American canned tomatoes, however, do not seem to be holding their own in competition with the Italian product. European consumers claim that there is less liquid and more meat in the Italian cans and that the tomatoes are peeled. The American tomato may be restored to favor abroad by the recent decision of the American pure food board that forbids the addition of water and of any more of the juice of the tomato than is just necessary to process it.

In addition to the reports from the consuls, the monograph contains a chapter on foreign pure food laws that relate to the importation of canned foods. In a few countries only are there regulations that affect the trade in this class of goods.—*New York Journal of Commerce.*

HOW NEW YORK WASTES FOOD.

The food consumed by New York City costs, at the railroad and steamship terminals, $350,000,000 a year; but when it gets to the consumers' kitchens, it costs $500,000,000 a year. The New York state food investigating commission has made a study of the food supply of the biggest city, and reaches this conclusion, among others.

The high cost of food in a large city is beyond doubt due in very large part to the chaotic and uneconomical system of handling which it undergoes. The New York commission, after careful investigation, charged this increase of 45 per cent in the cost of New York's food to waste and not to excessive profits. It proposes reformed methods of food distribution, which it believes would save the city at least $69,000,000 a year.—*World's Work.*

BEET SUGAR INDUSTRY IN THE UNITED STATES

The United States Department of Agriculture's report on the beet sugar industry of the United States in the years 1910-1911 has just been issued by Secretary Wilson in a 73-page pamphlet which contains articles on the work of the Bureau of Plant Industry on sugar beets, a general review of the beet sugar industry in the United States, the sugar beet in European agricultural economy, relation of adaption to the improvement of sugar beet varieties for American conditions, farm practice in the Arkansas valley, Colorado, suggestion on cultural methods in the sugar beet industry and sugar statistics. It is illustrated by two maps showing areas where sugar beets are grown, location of sugar factories, rainfall and frost data and six other plates relating to the industry.

The average American consumes 82 pounds of sugar each year—and only ten pounds of that ration is now produced in this country. The farmers of the country should keep that money at home; in other words, put it in their own pockets, and the Department of Agriculture has been trying for 16 years to show them how and induce them to do so.

Sugar is a product of manufacture mainly from the farmers' sugar cane and sugar beets. Incidentally some sugar is produced from the sap of the sugar maple—the entire value of that product, both sugar and sirup, and the sorghum sirup being only about $15,000,000 annually, while the value of the sugar beet and sugar cane industries of this country totaled $117,000,000.

The cane sugar industry fared badly this year on account of the Mississippi river flood, the entire production, including molasses and sirup, being valued at only $34,000,000.

Beet sugar is a comparatively recent product of this country, and can scarcely be said to have existed 20 years ago. The production during the 12th census year (1899) amounted to 81,729 short tons, while the 1912 product aggregates 700,000 short tons, valued at $73,000,000. The growth of this industry and the plans for its increase indicate that beet raising for sugar purposes is much desired by farmers for profit and cultural benefit to the land.

There are now in operation 66 factories in 17 states, which used during the past season 5,062,333 tons of beets produced on 473,877 acres, and the industry has become one of the mainstays and chief supports of agriculture under irrigation in the semi-arid states. Yet this industry produces practically only one-eighth of the home consumption. The importation from entirely foreign territory now approximates 2,000,000 short tons annually. A home beet sugar production sufficient to cut off this production would not affect the home cane sugar industry adversely, because that has so nearly reached its limit that any possible growth it may have from now on will not equal the annual increase in the country's consumption, which has considerably more than doubled in the past 25 years, and now is greater per capita than any other country except England.

With our present low average of one and one-quarter short tons of beet sugar per acre, it would require 1,600,000 acres to produce the 2,000,000 short tons now imported; or, as the acreage harvested the last year was slightly less than 475,000, it would need the production of 2,000,000 acres under beets to equal the entire home demand, a condition to which for more than 80 years economists have looked forward.

In the 19 states adapted to growing beets there are about 2,500,000 farms, and 278,719,622 acres of improved land. Therefore if every farmer in those states could cultivate one acre of sugar beets, some of the cane sugar from non-contiguous territory would have to seek another market. Or if one farmer in four in these states would plant a 3-acre patch and give it the care that could readily be bestowed upon so small a plot, it would be unnecessary for us to buy foreign sugar. Two-thirds of one per cent of the improved land in the states adapted to sugar beets would accomplish this result, and more than that acreage lies idle, absolutely unused, every year. Any one of the states of Illinois, Iowa, Kansas, Missouri, Minnesota, Nebraska or Ohio could produce all this sugar and then have the beets come only once in a ten-year rotation; and several of the others could do it alone on a 5-year rotation. The devotion of the necessary 2,000,000 acres to the production of the sugar required for our own consumption would have an utterly insignificant effect in reducing the acreage of other crops, and in fact, the growing of the beets would actually increase the total yields of other crops, because of the effect of the beets upon the soil, for the thorough working of the soil necessary to grow a profitable beet crop increases the yield of everything else grown on the same ground in succeeding years, and the beets need occupy the soil but one year out of ten.

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the 15th of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

Massachusetts.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

Michigan.

HOUSE BILL NO. 69.

By Representative Whelan, January 8, 1913.

A bill relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein and defining the duties of the State Dairy and Food Commissioner in relation thereto.

Vermont.

HOUSE BILL NO. 476.

An act relating to the sale of commodities, being a net weight bill introduced as a substitute for House Bill No. 89. Referred to committee.

GERMAN HERRING DISHES.

The Germans eat very large quantities of herring and two of the most popular dishes are the following, recipes for which were included in a recent consular report from Hamburg:

BISMARCK HERRING.

Raw herrings are thoroughly cleaned, scaled, and boned (head and tail cut off), and then laid in vinegar pickle and salt for two or three days (the pickle must be prepared according to the quantity of fish; a soft fish needs more salt, a hard fish less). At the end of that time the herrings are taken out and put into cans and a pickle consisting of vinegar, salt and sugar, the latter in the form of a boiled sirup, and spices according to taste (pepper, cloves, mustard seed, etc.) is poured over them and the cans sealed.

ROLLMOPS.

A salted herring is placed in fresh water for half a day, then cut open and cleaned, head and tail cut off, and boned. The herring is then laid flat, the inside filled with pepper, sliced onions, and one or two slices of salted cucumber, rolled up and held together with a small skewer. Boiled vinegar which has become quite cold and to which has been added laurel leaves, cloves, onions and mustard seed is poured over the herrings.

INCREASED USE OF DURUM WHEAT MAKES HIGH PRICES.

In a conversation had with Secretary Wilson of the Department of Agriculture several days ago, he called attention to the fact that the market prices for durum wheat grown in this country are higher than ever before.

It will be remembered that durum or macaroni wheat was introduced to this country by the Secretary of Agriculture in 1898. It came from the dry regions of southeastern Russia and was introduced as a crop probably adapted to successful cultivation on the semiarid plains of the West. From the point of view of the dry-land farmer, the crop proved to be all that was claimed for it by the Federal Department.

The total acreage in this country has advanced rapidly until two or three million acres are grown annually. Exact figures on production are difficult to give because complete statistics on this crop separate from the other classes of wheat have been taken but once, namely, in 1899. The states of North Dakota, South Dakota, and Minnesota are the leading producers, while Nebraska, Kansas, Colorado, Wyoming and Montana plant smaller areas.

When this wheat first began to appear on the market, a considerable prejudice against it developed on the part of the milling trade and the price paid for it was as much as 15 cents a bushel lower than for other wheat of a similar quality. This difference in price has been gradually decreasing until it was entirely wiped out and highest cash prices paid daily for durum wheat on the Duluth and Minneapolis markets have been equal to or as much as 5/8 to 7/8 cents in advance of those paid for No. 1 Northern, which is the standard and usually the highest-priced wheat on these markets.

The present comparatively high prices of the durum wheat are in spite of a normal production of about forty million bushels. It is probable that a constantly increasing use of the durum flour in the making of bread, either alone or in combination with common wheat flour, together with the inability of the Mediterranean markets to obtain durum wheats from Russia and the Balkan states at present, are responsible for the record prices.

MAKING OIL OF SASSAFRAS.

In some of the interior counties of North Carolina may be seen in operation many primitive establishments for the manufacture of the oil of sassafras and oil of pennyroyal. The apparatus used in this work is so exceedingly crude and primitive as to appear ridiculous to most observers; but the product is of goodly quality, and constitutes a profitable industry. For these oils the usual style of "still" may be briefly described as a short trench in the ground, ending in a low flue or chimney. Over this trench is placed a closed wooden box, having a sheet-iron bottom, and an auger hole on top, through which water is poured. An ordinary barrel stands endwise on top of the steambox, and has several holes bored through its bottom, and extending through the top of the steambox, allowing steam to pass freely up through the barrel. A lute of clay is used to close the joint between the lower end of the barrel and the steambox, as well as the cover of the barrel. Instead of a "worm," a tin pipe immersed in a trough of cold water is used; and a steam connection with the barrel is generally made by an elbow branch of wood, bored out with an auger. The sassafras tree (*Sassafras officinale*) grows abundantly in this section, especially on wornout lands, where it is usually found in dense thickets of small shrubs. The root is dug and washed free of dirt, and, after being chopped short and bruised with a hatchet, is ready for the "still." This work is done by boys employed by the manufacturer, who pays a stated price per hundred pounds for the root ready to use.

When the barrel is filled with the roots and the cover made tight with clay, the process of distillation goes on rapidly. The steam passes through the mass of bruised roots, and is condensed by the tin tube into a mixture of distilled water and oil, and runs into a glass vessel set to receive it. Being of different densities, the oil and water rapidly settle into two strata, and one can be decanted from the other.

It is said that the operator of such a "still" can pay all running expenses and make a clear profit of $3 per day. When we consider that the cost of establishing such a "factory" is less than $10 for the entire plant, and no chemical education is necessary on the part of the operator, the profit of the work is not to be despised.

The same process, says T. C. Harris in the *Practical Druggist*, is used in the production of the oil of pennyroyal (*Hedeoma pulegiodes*).

ARTIFICIALLY COLORED ORANGES CONFISCATED.

Several cars of California oranges were seized by the Government in November, the charge being that the fruit was artificially colored by "sweating," the inferiority of the fruit accordingly concealed, the contention being that the oranges were not in fact ripe. The case was tried before Federal Judge Landis in Chicago who decided it in favor of the Government; the fruit was declared confiscated, and the Judge directed the United States marshal to put a wrapper on each one of the oranges, the wrapper to bear the printed words, "Colored by sweating." After being so wrapped the decision directed that the fruit be sold to the best possible advantage and the proceeds turned into the United States Treasury.

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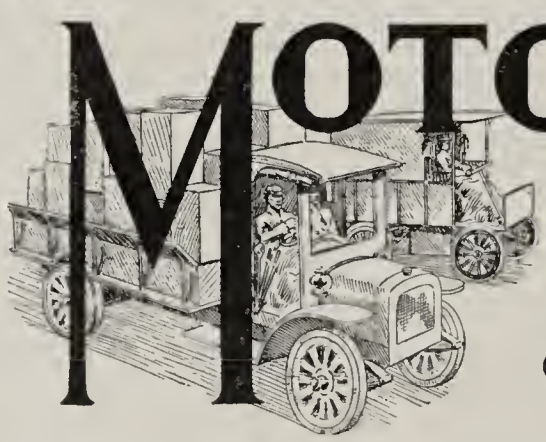
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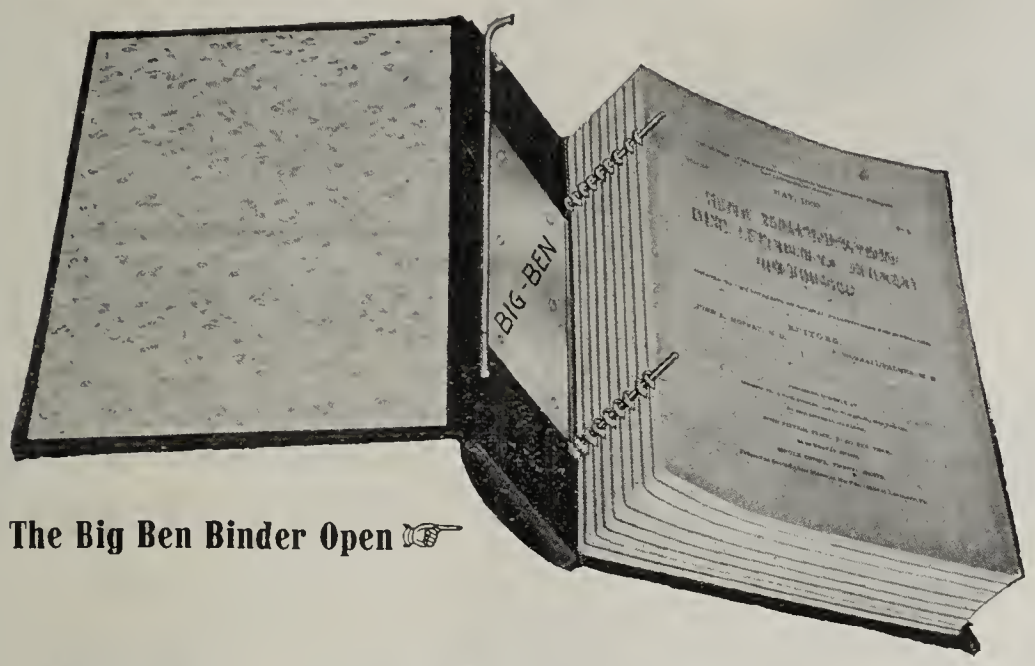
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SACCHARIN

Extracts from Remsen Board Report of January 13th, 1912.

"1. The findings of the Referee Board, based upon what would seem to be convincing, experimental evidence, are that small quantities of saccharin, up to 0.3 gram per day, are without deleterious or poisonous action and are not injurious to health. This being so, it would seemingly follow that foods to which small quantities of saccharin have been added—in amounts insufficient to result in a daily intake of more than 0.3 gram—cannot be considered as adulterated, since foods so treated do not contain any added deleterious ingredient which may render the said food injurious to health.

"Admitting that large quantities of saccharin—over 0.3 gram per day—taken for long periods of time may impair digestion, such evidence cannot consistently be accepted as an argument in favor of the view that smaller quantities must constitute a menace to health. It is often claimed that any substance having a deleterious effect on health when taken in large amount, must necessarily be injurious even when consumed in very small quantities, and that it is dangerous to differentiate on the basis of quantity. There is, however, no justification for such a view from a physiological standpoint. Common custom, for example, sanctions the free use of vinegar or dilute acetic acid as a preservative; yet it is well known that in larger quantity acetic acid is a dangerous substance. Common salt, while harmless when taken in small quantities, may become a serious menace to health if taken in larger quantities. The hydrochloric acid of the gastric juice is not only harmless but is essential for the welfare of the body, yet when its concentration is increased beyond a certain point it becomes a poison. It is evident, therefore, that the decision as to whether a certain substance is or is not injurious to health must take into account the quantity of the substance that is involved. The Referee Board is compelled, on the basis of the experimental evidence, to hold to the view that the addition of *small* quantities of saccharin to food does not constitute an adulteration, since there is no evidence that small quantities of the substance are deleterious to the health of normal adults.

"2. The *addition* of saccharin to foods, in large or small quantities, does not, so far as the findings of the Referee Board show, affect in any way the quality or strength of the food"; and further: "In the opinion of the Referee Board the use of saccharin in food in quantities that might constitute a menace to health is improbable, since its extreme sweetness would naturally limit its consumption by the individual to amounts below what might prove injurious (in harmony with the conclusions expressed in the original report of the Board)."

According to the statistics in the Department of Agriculture as to the total consumption of sugar in the United States, it is apparent that if all the sugar consumed in the United States *for all purposes* should be instantly displaced with saccharin, *the daily per capita consumption would be much less than 0.3 gram.*

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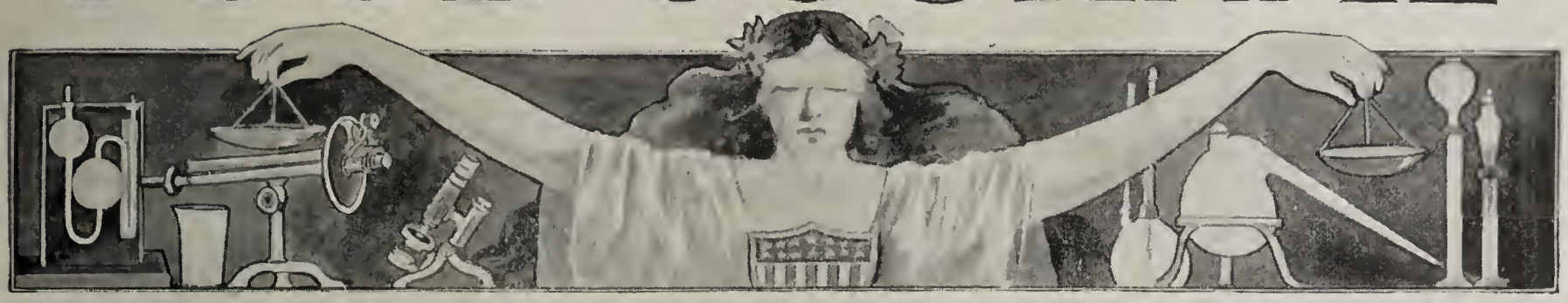
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VOLUME VIII. FEBRUARY, 1913 NUMBER 2.

Better Relations Between Retailer and Consumer Needed

THE relation of retail dealer to consumer is one of the closest and most vital existing in the commercial world. In food distribution the conspicuous retailers are the keepers of meat markets and grocery stores, and their customers are in very large proportion women. This brings the food retailers very close to the "woman question," and it behooves them to study it intimately in so far as it relates to their business at least.. A better understanding and closer co-operation between these two elements would without doubt redound to the great benefit of both.

The signs are unmistakable that women are determined to interest themselves actively in that phase of our economic problem which relates to the price of foods. The high cost of living cry which has been so voluminously discussed during the past few years and still occupies the center of the stage in public interest the world over is becoming more acute and women are already making somewhat organized though spasmodic efforts to force matters, as is evidenced in the recent egg sales held in some of our larger cities.

In much of the discussion of the causes for high food prices the retailers have been made the "goat" the discrepancy between published wholesale prices and retail charges at the local stores being considered unwarrantably great. Naturally retail dealers resent the criticism to which they have been subjected and reply to their critics with some show of spirit.

Mr. John T. Russell, president of the United Master Butchers of America, in an address before the last annual convention of the American Meat Packers' Association, declared that consumers ask too much in service and in the course of his remarks said:

"I take exception to some of the remarks made that the retailers should be eliminated. I say that we are necessary; we are necessary to the packer and we are necessary to the consumer. The service required nowadays is too much, it should not be tolerated. It is the public that demands such service, and such service must be paid for.

"I run retail markets in the city of Chicago I refuse to take a telephone order. I refuse to deliver a pound of meat. I refuse to trust anybody for an ounce or a cent's worth, and I eliminate that expense and can handle the meat and deliver it to the consumer at twenty-two per cent and pay the cost of running my establishments.

"Now it is service that these other people are paying for in their high meat prices. Let them go as their mothers did, with their baskets on their arms, and take their stuff home, pay their cash for it, and they can eliminate this 40 per cent that they holler about, and the farmer can get what is coming to him!

"The prevailing high prices of meat food animals have created mistrust and unrest among the people. The public cannot be blamed. The correct solution of the problem is very seldom printed. On the other hand, it has been very often stated that the packer and the retailer are making enormous profits. The fact of the matter is, there is no other article that enters into the cost of living that is sold for as small a profit as meats.

"Speaking for the retailers, I can truly say that we have been philanthropists and not grafters. A great many retailers have either been forced or voluntarily closed their doors because there is no profit in the business."

Retail grocers have also presented their side of the case in much the same vein as the above, and the public has taken cognizance of the statements made. Women have gotten down to a serious study of the situation with a view to reaching bedrock causes, and if those who have in charge the distribution of foods will assist them with the presentation of facts, it will hasten the time of better understanding and more friendly feeling between consumers and commercial purveyors of the necessaries of life.

An instance of the seriousness of purpose and determination to study conditions intelligently and fairly is shown in the act of the Clean Food Club of Chicago, under the auspices of which an egg sale was had in Chicago, the purpose of which was to break the retail price of storage eggs. At a meeting presided over by Mrs. J. C. Bley, president of the club, subsequent to the egg sale the members present pledged themselvs to use their influence against the housewives whose demands on grocers are out of reason and often impossible to grant, and adopted the following resolution:

Resolved, That the Chicago Clean Food Club use its active

influence against unnecessary and burdensome practices on the part of housewives who demand frequent and immediate deliveries of groceries. The added cost of such deliveries is borne by the general public, and the club pledges itself and even demands co-operation on the part of all housekeepers for the standardization of two deliveries a day.

In order to further demonstrate their desire to learn more about the economics of food distribution the club prepared a set of questions for retail and wholesale merchants, asking for public answers to them. Replies to the questions would doubtless include many sidelights as to whys and wherefores and should dealers see fit to make such in full a lot of valuable information would be disseminated.

The questions propounded to retailers are as follows:

What is a fair margin of profit per dozen for a retail grocer in selling eggs?

What is the lowest amount of profit for which a retail grocer can sell eggs in a well located store, in a populous district, and with a large trade following?

What is the highest margin of profit a retail grocer would need to sell eggs where expenses are high, collections slow, and the cost of doing business great?

The wholesalers are asked:

At how much more than the wholesale car-lot rate can a retailer buy the finest April eggs prepared for the table?

When a wholesaler is selling to large retailers who can buy in quantities, what is the lowest margin per dozen for which he can candle and sell finest Aprils?

Where trade is in one-case lots, the retailers scattered and deliveries must be made, what is the largest margin per dozen necessary for the wholesaler to charge retailers for loss in candling and profit over the car-lot prices for finest Aprils?

These egg sales merely offer an instance of the attitude which consumers are taking on the price question of common foods, and their activities, it is announced, are to be extended to other products. The long and short of it is that consumers are bound to know facts and the best policy of all interests is to give out the fullest possible information, openly and graciously. The consumers' best teachers should be the retailers, their daily direct contact with their customers giving them special opportunity to influence and instruct. This can be done in an incidental way without the loss of a great deal of time if dealers keep the thought constantly in mind and instruct their clerks to do likewise, and results will surely repay the effort.

AS TO FROZEN ORANGES.

FROZEN citrus fruits are under the ban by a ruling of the Board of Food and Drug Inspection just issued. This move was deemed necessary on account of the report that an attempt would be made to market the citrus fruits which were frozen during the recent cold snap in California.

Frozen oranges present a more than usually difficult problem to inspectors because of the fact that no outward evidence appears to indicate that the fruit has been damaged. A frozen orange is dry and lacking in juice, and contains a larger proportion of acid than unfrosted fruit, but the only way to discover the condition is to cut the orange open. It will apparently be necessary for inspectors to proceed on suspicion in reference to the fruit and take a chance on finding damage after cutting it open.

So far as we are able to learn no experiments have been made to demonstrate whether or not what juice remains in a frosted orange is actually unwholesome or "deleterious to health," but it is quite certain that no consumer would consider himself rightly dealt with should he find the oranges purchased in good faith to be dry and sour from frost damage. The ruling will tend to make growers and packers exercise unusual care not to risk loss by shipping frosted fruit from California, and those who take it from the trees are best able to judge of the fruit's probable quality. It is estimated at this time that 65 to 70 per cent of the California orange crop is unfit for marketing and this is bound to leave our retail markets in short supply.

GROWING USE OF OLEOMARGARINE.

THAT the consumption of oleomargarine in this country has been enjoying a real "boom" recently is a statement not open to argument. While not denying that we are eating vastly greater quantities of this product than ever before, different interests may assign conflicting reasons for the fact. We believe, however, that the weightiest influences contributing to the increase of consumption of this product are the growing knowledge of the public as to what oleomargarine really is and the prevailing high price of butter.

No honest person believes that consumers should be persuaded to buy oleomargarine by deceptive methods calculated to convey the impression that the uninformed purchaser is buying butter; but sold for what it is, with no effort to deceive, there is no valid reason why there should exist prejudice against this wholesome product.

The elimination of such prejudice is apparent in all parts of the country, and East and West show materially increased oleomargarine consumption. A New York report states that leading makers have conducted a vigorous campaign in eastern territory, especially in districts contiguous to New York City, with the result that local sales there were running 25 per cent above former records, and steadily increasing. It was asserted by large western factories that more than 4,000 wholesale and retail dealers in and around New York had secured selling licenses, and that this number was being increased by from 300 to 400 each month.

In the West figures are not wanting to prove the increasing use of oleomargarine, and whereas in October, 1912, the make in the Chicago district amounted to 8,600,000 pounds, in 1911 during the same month the output was but 5,600,000 pounds.

There is no indication that butter will ever be actually replaced by any substitute product. The high prices demanded for butter do, however, create the necessity for a large number of people to look about for something to take its place on their tables.

As production of these two products now stands it would certainly seem to be amply demonstrated that there is sufficient room for both in the commercial world—in fact, not only room, but necessity. We believe there should be no need of apology for oleomargarine, manufactured and sold as such. It has a legitimate and important place and in the case of this product at least, the word "substitute" should carry no opprobrium.

Oleomargarine should be made of pure products, in sanitary factories, and sold under its true name. That is indisputable. But the question is: If the consumers of the 140,000,000 pounds of oleomargarine made in the United States last year, for which government stamps were purchased, had not bought this substitute, what could they have purchased to take its place?

DR. ALSBERG ASSUMES REFRESHING ATTITUDE.

AFTER so much turmoil resulting in a deplorable amount of sensation and injury to many food manufacturing interests it is indeed refreshing and reassuring to note the attitude which Dr. Carl L. Alsberg is assuming towards his new office as Chief of the Bureau of Chemistry of the United States Department of Agriculture.

Dr. Alsberg seems to be one of those first-to-be-sure-you-are-right-then-go-ahead men, instead of a first-go-ahead-then-try-to-make-yourself-right individual. He has taken hold of the duties of the Chief Chemist without noise or turmoil, and rigidly avoided newspaper interviews calculated to draw attention primarily to himself. Unassuming modesty combined with quiet accomplishment seem to be his conspicuous characteristics, qualities which augur well for his own success, and efficient results for the public.

A representative of the *New York Times* appears to have had the best success in getting Dr. Alsberg to talk about his new office and his purposes in reference to it, and we publish below the result of the interview:

"What are my plans? Honestly, I have been too busy with my work here to spend any time worrying about what I might do if I should happen to be appointed Chief of the Bureau of Chemistry.

"Then, you see, I know the work of the bureau only as an outsider. It is vastly different to look at things from the outside and then to look at them from within. I don't know just how far the work in any line has been carried, nor just what may need to be done to perfect the undertaking. Neither do I know more than casually the men with whom I shall have to work—and the women, for there are several women scientists in the bureau—nor do I know what funds are available to carry forward the work. To know both my men and my funds are essential before I can outline the work of the future. So, to begin with, I shall have to go a little slowly.

"Personally, I would like it very much if the public would forget all about me and that I have been appointed Chief of the Bureau of Chemistry, and give their whole attention to the work which the bureau may accomplish.

"Of course, the place I shall occupy is important and responsible. I am not undervaluing the importance of the work, nor the honor which has been given to me. But after all a bureau chief or a division head is merely a sort of chief executive or director of the work of his department.

"The real work has to be done by the dozens of fellows of whose names nobody ever hears. Day after day, patiently and never tiring, they work at the most difficult and tedious problems, finally working out something immensely valuable. Yet nobody ever hears of them. The division head or bureau chief comes out with a bulletin signed with his name and containing all of the hard work and valuable results which the unheard of fellow has dug out. The chief gets all the credit from the public, and too often from the scientific world, and the man who actually accomplished the thing counts himself mighty lucky if he even gets his name in an ever so small foot note.

"Now that isn't fair to the men who are doing the work, and it isn't fair to the Government. It is a system pretty commonly practiced in all of the departments in Washington, and it is robbing the Government of the services of the best trained and most efficient men. When a man occupying a chair in a college accomplishes a notable piece of research work or makes a valuable demonstration he gets the credit for what he has done. The Government does not pay overprincely salaries, and when on top of that a man doesn't get credit for his work, naturally many are deterred from entering the Government service, and many leave it after an unsatisfactory experience.

"And so far as the Bureau of Chemistry is concerned, my ambition is to have the work done there at such a high standard, scientifically, that nobody can question it."

"So we definitely are to know what is beer, likewise what is whisky, and how much benzoate of soda we may consume incidental to the catsup and still retain an intact interior department?" was asked.

"What is beer is more a legal question than a scientific one. A legal authority must determine what is the definition of beer. Of course, the lawyer must have the aid of the scientist in reaching his decision, but there has been, I should say, too much confusing of legal and scientific questions.

"Also, without the slightest desire to criticise, I think there has been too much of the spectacular brought forward from the Bureau of Chemistry. Probably a good deal of that is attributable to newspaper people. You want the new, crisp news, naturally, and you'd rather feature 'What is Beer?' than some of the solid constructive work of the bureau.

"I believe that most manufacturers and handlers of foodstuffs want to do the right thing, but most of them don't know exactly what is the right thing. The whole subject of food inspection and the demand for pure foods is new. When the Bureau of Chemistry was established there were no standards, no guides of any sort. Everything had to be worked out, and it's been slow work. Only a few things definitely have been determined for this analysis of foods. To establish standards is not the work of days, but of years. When we arrive at what is the standard then we must show the manufacturer how to bring his products up to the standard.

"If we tell a man who is putting up dried fruit that he must not use certain preservatives to prevent the development of insect life in the product, we have gone only half way if we do not show him how he can take care of his fruit in such way as to dispense with the forbidden preservative and still insure the keeping qualities of the product.

"The same thing is true of eggs, for instance.

"There were millions of dollars' worth of eggs going to waste every year, and the consumer was suffering from short market and excessive prices, until methods of preserving eggs by freezing and drying were developed. Now there isn't the slightest reason why eggs preserved in such manner shouldn't be as acceptable for general cooking purposes as eggs in the shell. The trouble was that the eggs in many instances were long since past their first youth before the freezing or drying was undertaken. Also the establishments were far from sanitary. The Bureau of Chemistry began inspection and closed down numbers of the egg-preserving establishments. Now if the bureau hadn't sent out experts to demonstrate just what the requirements were and just how easy it was to maintain an egg-preserving establishment under legal requirements, the action of the bureau in proceeding against the egg preservers would have been destructive instead of constructive work.

"The same thing is true of oysters. In most cases the man who owns an oyster bed and the men who handle the oysters don't know whether or not their oyster beds are contaminated. Generally speaking, when they know the requirements they are perfectly willing to meet them."

"And what about benzoate of soda and all that pack of troubles the bureau has had? And the patent medicines?" was asked.

"I shall not be at all inclined to see the law evaded," was the prompt answer, "for laws for pure food and against harmful drugs are most essential and their enforcement is necessary. But a rigid rule to cover all cases cannot be laid down. Every case must be determined according to its own peculiarities and complexities. We must test each thing for itself and be absolutely sure of our ground before we proceed. We must know if we say 'thou shalt not' to drug or food producers that we are standing on such sure ground that we cannot be mistaken and we cannot be reversed when the matter perchance gets into court.

"I think that has been one mistake the Bureau of Chemistry has made in the past. It has been in too much haste. The public was watching it ceaselessly, and naturally there was a perfectly human wish to show some results. So it happened that some immature and not scientifically well-grounded positions have been taken by the bureau. I want to avoid that if I can—I want to be absolutely sure.

"And I hope to stress the important things which the bureau may accomplish and keep from the forefront, if I can, the very minor questions, such as the famous beer controversy, and its predecessor concerning whisky.

"Also I hope to accomplish some things as big in constructive lines as are being carried on in other bureaus."

One of the most encouraging parts of the above expressions of Dr. Alberg's in reference to what he wishes to accomplish is the point that he will make the work of the bureau essentially *constructive*. This he interprets specifically to mean that he and his assistants are only half done when they discover wrong conditions and practices; the other half, and quite as important as the first, is to also find out a remedy, and be prepared to offer a better way and something to replace the forbidden practice. To destroy anything is usually an easy matter, but to reconstruct and provide something better than that which has been condemned is often exceedingly difficult—indeed, quite frequently it proves a baffling impossibility for a long time.

In the enforcement of the Pure Food and Drugs Act, manufacturers and consumers both have their rights which should not be trampled upon. It may frequently happen that a manufacturer is obliged to continue an unsatisfactory process or use some article that does not give the most to be desired results, but for want of sufficient available knowledge he is forced to proceed on the existing lines until through his own efforts, or those of some other source, an improved method is discovered.

It is, perhaps, because of this one feature of arbitrary prohibition without provision for satisfactory substitute, more than any one other single thing that the previous administration of the bureau encountered the dogged opposition that it did from so many sources. There was altogether too much "Thou shalt not," and no reply to the legitimate question, "Then what *shall* we do?"

There having already been accomplished such a large measure of ruthless destruction by the former head of the Bureau of Chemistry now that Dr. Alberg is at the helm, it is good to know that he will bend his efforts toward reconstruction, and if he perseveres in his avowed course he will certainly enjoy the heartiest co-operation from all interests, including consumers and manufacturers of foods.

Dr. Alsberg's first public address since he assumed the office of Chief Chemist was made on February 12, 1913, at the annual meeting of the National Association of Manufacturers of Medicinal Products, at the Waldorf-Astoria, New York City. In that speech he outlined some of the important policies of the bureau, and we are publishing it in full in this number of THE AMERICAN FOOD JOURNAL.

SOLICITOR McCABE TO PRACTICE LAW IN OREGON.

ON January 31, Mr. George P. McCabe tendered his resignation as Solicitor of the United States Department of Agriculture, to take effect on March 4, next. At the same time he announced his intention to take up the active practice of law from that date in Portland, Oregon. President Taft, Attorney General Wickersham, and Secretaries MacVeagh and Nagel, as well as Secretary Wilson, took advantage of the occasion to compliment Mr. McCabe in the highest terms on his ability as a lawyer, his single-minded devotion to public duty, and the efficient manner in which he has conducted the legal business of the department of agriculture.

Those who know the facts regarding the record which Solicitor McCabe has made during his more than seven years of service will agree with the President and his cabinet officers that Solicitor McCabe's resignation means the loss to the government of a valuable public servant. The pure food law, the meat inspection law, the insecticide act, the twenty-eight hour law, and other laws which congress has entrusted to the Department of Agriculture during Solicitor McCabe's term of office, have presented many new difficult legal problems. In handling these problems, Solicitor McCabe has fought consistently for a construction that would strengthen the law, and he has been notably successful. The principles he has contended for in controversies under the pure food



MR. GEORGE P. McCABE.

law and the meat inspection law have been uniformly sustained by the attorney general and generally by the courts. In his conduct of the law business of the department, Solicitor McCabe has earned an enviable reputation for hitting hard and to the mark. During the hearings relative to the proposed meat inspection investigation before the Moss Committee at the last session of Congress Solicitor McCabe, representing the department of agriculture, displayed such a thorough and comprehensive knowledge of the subject that he has come to be recognized as the leading expert on meat inspection laws, and no small share of the credit for the successful enforcement of the federal meat inspection law is due to him.

We wish Solicitor McCabe every success in his new field and congratulate the people of the state of Oregon that such an honest, conscientious, persistent, and capable lawyer is to settle in their midst.

Much speculation is rife as to whom will succeed

Mr. McCabe as solicitor in the department of agriculture. No information is available on this subject at the present time. The field, however, is somewhat limited on account of the fact that the position of solicitor in the department of agriculture is in the competitive classified service and will be filled by the new secretary of agriculture according to civil service rules.

ILLINOIS FOOD COMMISSION BACTERIOLOGIST.

The American Food Journal believes that the Illinois Food Commission is particularly fortunate in having upon its staff a bacteriologist of the high character of Dr. Louis J. Tint, the present incumbent of the office. And in the good fortune of the Commission the whole state shares, and not only the state, but the entire country, for there is not one section where work of the character performed by Dr. Tint is not of great value.

The position of bacteriologist of the State Food Commission was created only about a year ago, and Dr. Tint has occupied the office from the first. One can scarcely overestimate the importance of the results of the tests and investigations made by Dr. Tint, and we hope to see his powers extended and his equipment enlarged and improved so as to be made adequate to every need. Young, talented and ambitious, Dr. Tint pursues his investigations with professional enthusiasm of an unusual type, and also brings to bear in his work an education and experience as a pathologist and physician, these qualities adding much to the breadth of his vision and the practical usefulness of his deductions in their application.

We take pleasure in publishing the following letter, written by Dr. Tint, to Hon. A. H. Jones, Illinois Food Commissioner, because it indicates very clearly the splendid type of man we have as bacteriologist to the Commission. The letter was not intended for publication as Dr. Tint can truthfully add the quality of modesty to his other fine characteristics, but we have secured permission to reproduce it in The American Food Journal. The letter says:

Chicago, December 16th, 1912.

Hon. A. H. Jones,
State Food Commissioner, Chicago.

Dear Sir:—I feel that the time has come when you should be acquainted with my duties and the work carried on under my care. I trust that you are aware of the fact that it took me, last year, three weeks to decide whether I should accept the position as bacteriologist, for I was then associated with Professor Fenton B. Turck, as his assistant to take care of his immense practice, and to take charge of his research work. My salary for a half a day there, was as much as I receive here for an entire day.

At that time, another position was offered to me as assistant to Professor Albert, head of the Department of Pathology in the Iowa University. But after talking the matter over, it was agreed that it would be to the advantage and to the interest of my research work, which I have been engaged for the last five years, to take the place.

As this department was new, and the character of the work relating to it was of equally recent development for the fact that there is not even a text book written on it, it was pointed out that immense opportunities were present, to investigate certain known diseases of unknown origin. Certain diseases in animals used as food are traceable directly to eating diseased vegetables. Similar diseases are present in human beings. My three years' service as pathologist, where I studied diseases of human beings and animals, and the opportunities to investigate the relations existing between diseases of vegetables, animals, and human beings, strongly influenced me to accept this place.

Indeed, I am happy to state that although it is nearly a year since I began my duties, I feel as if it was but yesterday. The pleasure my work has given me, which is only a beginning of more important work in the future, has more than convinced me of the immense opportunities and possibilities, in carrying out the work I expected. I did not then realize that the food products given me to investigate now, are just what I wished to investigate. My ideal, which I contemplated, is being realized while performing my duties. I hope, therefore, that the results of my work will not only be a credit to the department, but to those who have charge of it, and a benefit for the people.

In recent years, great works have been done in the study of the cure and prevention of disease. A great credit is due to men like Rockefeller, who has built an institution where the best men are engaged in research work. No doubt you are acquainted with the wonderful work achieved in preventive medicine, within the last ten years. But one great principle which has been recognized in that institution, and in many other similar institutions, is that he who deserves credit should receive credit.

In performing scientific work there is no limited time, or a definite time a man must work. The nature of the work determines the time. In doing experimental work, one is obliged to put in days and nights, weeks and months of uninterrupted work. When a work of this nature is successful, the pleasure derived from it well repays for the labor. The reason that men in the Rockefeller Institute have been able to achieve such wonderful discoveries is, that they are encouraged, assisted, and every possible help given them to further their individual abilities. All the work done in individual departments goes to the credit of the Institute. Every individual is taken care so that he receives his credit. This encourages them to double their energies in performing their assigned duties.

Sir, I have had three years of hard but pleasant work in pathology and bacteriology, in one of the largest hospitals in the United States. But it is comparatively easy to move in a plentifully furnished home. When one has to build the house, and furnish it, that is quite different. To build up a working laboratory of this kind is easier to say than to do. Every time I have to carry out new experiments I need new materials and new methods. In order to be competent in work that would be a benefit to the department I undertook special work under the best men in the University of Chicago. It has cost me great sums of money and every moment of available time. I received my vacation from the first of September. Instead of going out, as others did, for a rest, I attended the University five days in the week from early morning to late at night.

I am required to be at the laboratory seven hours a day in order to perform my duties. But the work in bacteriology and pathology is of such a nature that in order to do one experiment it requires weeks to prepare the necessary material.

For instance, if a suspected meat or milk comes for an examination, I have to find out first if it contains bacteria The presence of bacteria is not conclusive that the food is injurious. I have then, to isolate the bacteria in pure cultures, which requires a great deal of culture media. This must be made, sterilized for three consecutive days at fifteen pounds pressure, for half an hour. The fourth day the media must be tested in the incubator if it is sterile. Then come the inoculations and testing, to ascertain whether the bacteria are poinsonous. Animals are injected, they die, the tissues must be examined by running through special method and cutting this with the microtom. This process requires about a week. The last, but not the least, comes the cleaning part. To take care of animals requires some time also.

Preparing culture media, etc., sterilizing and cleaning the infected material after the experiments are over, taking care of the living and dead animals requires five out of seven hours each day.

How much time, Sir, is there left to do actual work? Can you realize what it means to work in a branch of work where there is not a text book on the subject? I am, therefore, compelled frequently to consult recent literature. The only places where such information is to be found are the John Crerar library and the University.

In order that I should be able to do more work I hired a boy and other help to do the cleaning, etc., which costs me forty dollars a month.

My work in the University including other expenses which is directly for the benefit of the department, cost me on an average of twenty-five dollars a month. Yet I have never complained, nor asked to be refunded part of my expenses.

In order to carry out the work in the University, I have to rise every morning at six. I remain there till twelve and I endeavor to be at the food department at one p. m., where

I remain till six or seven and sometimes later. If, however, I happen to go out for an hour or two, it is because I need to get certain important materials to work with, or I go to the library for information.

The character and vast variety of my work are of such a nature that there are not many who would tell me what to do, or could suggest how to do it. I have only to rely on my past experience and future hard work. I do all that, not that I am compelled to do it, if I were I would not be here, but because I love my work.

I am frequently called to make special blood examinations or antitoxins which pay ten dollars or more for each, yet no money can buy me while I do my work. If I were anxious for the money which was to be gotten. Dr. Fenton R. Turck only recently offered me to take charge of his research work in the new institute he is conducting in New York. The salary would be about double that I receive as bacteriologist. If I loved money better than work, I would not have spent three years in a hospital, two years' research work, and be now depriving myself of every spare moment to go to the University and do other work for the department which costs me over fifty dollars a month.

If I were one-tenth as much interested in developing a private practice and attend to it as earnestly as I do my work here I could, today, have a successful practice. The two evenings which I set aside on cases I am particularly interested in, such as tuberculosis, blood poinsoning, brings me nearly as much as I receive as bacteriologist. It is well that I do make this much of my private practice, because, having money at my disposal, I can do certain extra work or buy materials of my own expense, which is or will be of benefit to the department in the future. I do, however, benefit by it, directly or indirectly. It makes me more efficient, enables me, intelligently, to carry out such a vast variety of work, and prepares me to act as an expert, which may be required of me at any time in the future.

You may ask as others did in the past, why do all this, why sacrifice, when life is so short, but you know that one cannot tell everybody what one's heart desires.

One great desire I had before I began to study medicine and still have, is the study of certain infectious diseases and to find, if I be fortunate enough, a possible cure. If you could realize and feel as I do and see the opportunities present in this department, to work out this problem and many others which can not be separated from food products, and which have interested for the last century the greatest minds in the world, you would be convinced that every minute wasted is a crime. That subject in which I am interested and is so prevalent, and which I see so frequently in the work of my department, is tuberculosis. It is your object and endeavor, as commissioner, to protect the people from eating tubercular meat or their poisonous products. It is my ambition to do more.

Presently, I would like to continue certain experiments, particularly those on decomposed meat and opium. This would require larger animals, etc. But under the present circumstances, I do not know what to do, as I have no idea how much money I am permitted to spend on experimental work, and what are my responsibilities to the department.

Mr. Commissioner, you will realize what it means when one spends four years in medical college, three years in a hospital, and two years in research work and takes a place as bacteriologist, spends part of the salary, doubles the time of work for the future benefit of the department, and what are the prospects in the future? What encouragements have I had thus far, that would stimulate me to work?

As long as I have the opportunity to carry out good work, I will remain and give to the department the best of my abilities and work in unison with and for the benefit of the department and the people.

Mr. Commissioner, I feel that it is in your power to assist me in performing my work and duties, and to establish this department on a scientific basis. I sincerely hope that it will be a pleasure and credit to you in seeing that it was under your administration that such was undertaken. I am,

Respectfully yours,

DR. L. J. TINT.

BUREAU OF HEALTH BILL FAILS.

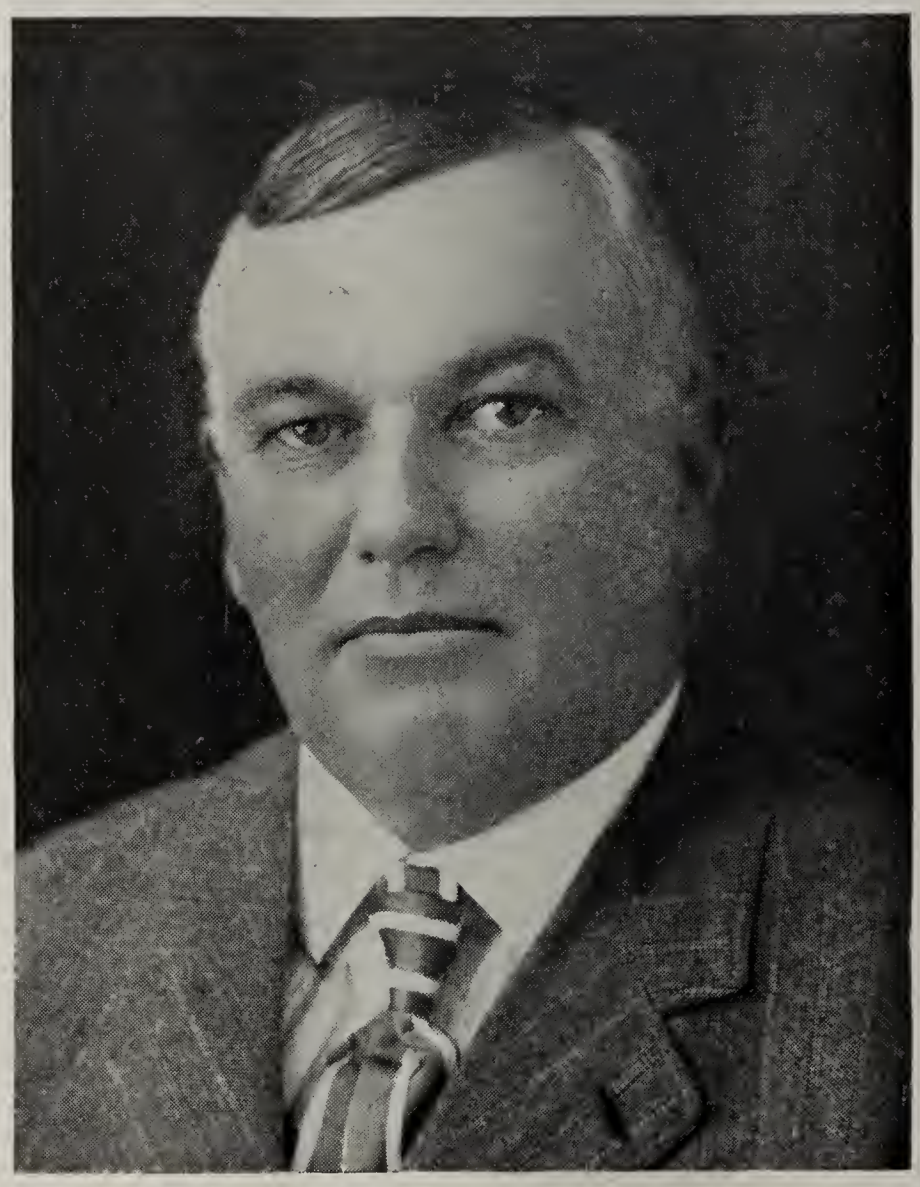
Efforts to put through the national legislature a bill establishing a National Bureau of Health have resulted in failure with the refusal of the Senate to take up for consideration the Owen bill, which had that for its object. This means there will be no action on the matter during the present session of Congress.

MR. JAMES W. HELME OF MICHIGAN.

As announced in the January number of THE AMERICAN FOOD JOURNAL, Mr. J. W. Helme, has succeeded to the office of dairy and food commissioner of Michigan, having assumed full control of the position on January 15. The Michigan press is expressing much satisfaction over the recognition of Mr. Helme's good work as deputy commissioner and predicting a continuation of his faithful service in his present position.

The *Michigan Dairy Farmer* said in a recent issue: "We have had many unique characters in public office in Michigan since this state emerged from wilderness, but there have been few who could match James W. Helme in originality of method or many-sidedeness of character. He started out as a farm lad, driving cows home from pasture and undergoing the customary hardships of early life that are regarded as being indispensable to the attainment of true greatness. The only difference between Mr. Helme and the other great men of our day is that he is still driving cows while they are driving hard bargains in the political or financial arenas."

Mr. Helme is owner of a fine farm near Adrian, Mich., to



MR. JAMES W. HELME.

which he devoted the greater part of his early career. He is also a lawyer and practiced that profession in Adrian for several years, and for seven years was city attorney of Adrian. As an editor also Mr. Helme has developed talents and he is well known in connection with his work on the Grange *Patron*.

As deputy food and dairy commissioner Mr. Helme has made his policies well known to the people of Michigan and, to again quote the *Michigan Dairy Farmer*, "the next two years are bound to be full of surprises for everyone whose interests come in contact with the dairy and food department. Mr. Helme has some rather positive ideas concerning the running of the department and he may be depended upon to execute these ideas in his own positive fashion. He isn't saying much about what he is going to do—at least for publication—but we may look confidently for him to make some radical demands for new dairy and food laws that will bring these antiquated, incomplete statutes into conformity with present conditions."

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

"AN APPLE A DAY KEEPS THE DOCTOR AWAY."

WHILE it would be carrying the matter too far to believe literally the old saying, "An apple a day keeps the doctor away," it cannot be gainsaid that in the apple we find one of our most appetizing and healthful fruits. Seldom does one hear of a person becoming tired of eating apples, yet it is one of the few fruits which one has in comparative abundance the greater part of the year, and which may be secured in its fresh state. It is quite safe to say that no orchard fruit is more extensively grown over the earth's surface than the apple; no other fruit so widely nourishes mankind, and none allows of so many uses in different forms. The apple is indeed a staple in domestic economy.

Apple culture has been reduced to a science in many parts of the country, notably the western section, where competition and expensive transportation to markets make it necessary that those who wish to dispose of their product advantageously improve quality and pack in the most attractive manner. Beginning with the cultivation and spraying of the orchard in order to insure fruit free from scale or outward blemish, the up-to-date apple grower, East or West, watches the growth of his fruit with assiduous care, and when it is finally ripened picks, sorts and packs in such a manner that the retail trade shall be assured fruit of uniform size, shapeliness, good color, and of the most excellent flavor a given soil and climate will produce.

There has been a very great increase in fruit consumption during later years, and also a phenomenal growth of output. Frequently producers or commercial interests raise the cry of warning against overproduction, but that bugbear of the orchardists would seem to be largely a matter of unhealthy imagination.

While compartively few of us will become members of the Fruitarian cult, our relish for this class of foods increases as the years pass. Mr. Sampson Morgan, an English fruitarian who has written much concerning the advantages of a fruit diet, as he sees them, in one of his articles says:

"The value of fruit as a food does not lie so much in the nutritive or flesh or fat-forming constituents as in the presence of sugar, acid, tartaric and citric, salines, potash, soda, calcium, phosphates, etc., vegetable jelly, scents and flavors, nearly all of which are of the utmost service to the body which uses up these materials daily and requires them to be constantly renewed. It is well to understand what we mean by 'fruit,' for the term includes so many different varieties, apparently having no connection with each other. The popular acceptation of the term 'fruit' is the mature ovary of the flower, and the mature ovules forming the seed, but we have classed many of these among green vegetables, and we must in addition include in the term other parts of the flower, such as the pulpy-disc or receptacle, as in the strawberry, the united calyx and ovary, as in the apple or gooseberry, etc., or we may have the fruit the result of several united flowers, as in the pineapple, or various seeds in the form of nuts, such as the cocoanut, which is very rich in albumen, and forms a staple food.

"One of the most useful fruits we have is the apple, and it is in season the whole year round. It consists of the calyx, calyx-tube, and stamen. We can make it useful as a drink, eat it raw, cook it in a variety of ways, and produce a wholesome and delicious jam and jelly from it. The apple is espe-



APPLE PICKING SCENE IN AN OREGON ORCHARD.

cially rich in phosphates, as is shown by the following: 'The amount of phosphates contained in apples, grapes, and tomatoes (without phosphorus no life) cause them to be brain food of high value. At the present time man is undergoing a slow but certain incremation upon the altar of cupidity or ambition; this nervous exhaustion causes dyspepsia, an invert liver, and other complaints, and the only way to prevent the incremation is to supply phosphorous as fast as it is burnt by means of fruits and vegetables.

"The various kinds of apples are so numerous, and they are called by so many names, that space will not permit me to describe them; but we can divide them broadly into two classes, viz: eating and cooking apples. The former should be full of fruit sugar, vegetable jelly and acids, and when properly masticated are easy of digestion and can be eaten at any time of the day, although it is better to confine them to breakfast and lunch. It have already referred to the phosphorus in the form of phosphates the apples contain, which has been proved by special analysis made by the German school of scientific chemists. Apples contain it in larger proportions than any other fruit or vegetable, and on this account are very important to those who lead a sedentary life; this, together with the acids and other salts they are made up of, increases the action of the liver, and helps to eliminate effete matters, which, if retained in the system, produce inaction of the brain and of the whole system, causing sleeplessness, etc.

"Apples and other fruit have the additional advantage in the summer of lowering the temperature of the body, decreasing the process of oxidation, and thereby preventing the waste of the system, activity is increased, fatigue and thirst diminished. The Greeks lived nearly entirely on the fruits of the earth, and as the result enjoyed perfect health—'a sound mind in a sound body.' Walnuts give nerve or brain food, muscle, heat and waste. The great majority of small fresh seed fruits are laxative. Dried figs contain nerve and muscle food, heat and waste. Blanched almonds give the higher nerve or brain and muscle food; no heat or waste. Apples supply the higher nerve and muscle food, but do not afford staying properties. Grapes are nutritious and blood purifying. Tomatoes supply higher nerve or brain food and waste; no heat; they are thinning and stimulating. Prunes afford the highest nerve or brain food, supply heat and waste."

The average composition of the apple is: Water, 82.5; carbohydrates, 12.5; proteid, .4; nitrogenous, .4; fats, .5; acids, 1.0; cellulose, 2.7 per cent, this analysis being given by Miss L. Gertrude Mackay, an authority on domestic economy, and one who has studied the apple exhaustively. "From a dietetic standpoint," she says, "the most important function of the apple is that of furnishing mineral salts and organic acids, but it has an important nutritive value as well, furnished by the carbohydrates present. As the fruit ripens the starch changes to sugar. The apple has a medicinal value as well, especially if eaten at the beginning of the meal or between meals."

A bright housekeeper who has had extensive practical experience with apples from the culinary standpoint says that while "one might say you could hardly go amiss in using the apple, yet it is an easy matter to spoil it. To begin with, the moment the skin is broken there is no time to be wasted. It is characteristic of the fruit acids that quick and careful handling and rapid cooking are important if you would avoid any deterioration. Any long exposure to the air is undesirable, and contact with the baser metals must be shunned. An earthen or agate dish and a silver knife or spoon are the proper utensils. A light hand, a quick fire are requisites for perfection, even in making the simplest dish of apple sauce. With long and slow cooking the best apples will give a poor result, while from inferior fruit a much better product may be had with good management. Skill and good judgment will by seasoning do much to develop and heighten a low flavor. Sugar alone will not do it; oversweetening is a common fault, which destroys the sprightly tang that gives a fillip to the palate. A little lemon juice often helps an apple that is lacking in flavor, and orange, almond, cinnamon, nutmeg or clove are all among the additional aids from which to choose upon occasion. Water should be added sparingly. The best apple sauce takes very little.

"The apple combines agreeably with nuts or with the foreign fruits, such as raisins, figs and dates, and these combinations are now entirely in the popular vein. Pared and cored apples, with the orifice stuffed in this manner with a mixture of chopped nuts, candied ginger, etc., are steamed, baked or served in a rich syrup, with or without cream, whipped or plain. By combinations with the cereals, farina, tapioca and the like, a whole class of wholesome and excellent dishes may be had, to vary the home dietary. These are especially valuable in the many families where pastry is somewhat out of favor.

"Such combinations as apple dumplings, baked or steamed, apple tea cake, both made with a rich biscuit dough, the apples finely cut, and for the tea cake lightly pressed into the flat loaf after it is in the baking pan, these and a Brown Betty of sliced apples between layers of buttered bread crumbs, may also be considered as good substitutes for pie. On the farm, cream is the natural and most delicious adjunct of these and similar compounds, and cottage or Dutch cheese is another rural luxury that suits most perfectly with fresh-cooked apples. Simple dishes at their very best are among the high satisfactions of the table. The country housekeeper is wise who makes a point of excelling in the use of that material which is abundant and actually costs little or nothing.

"If one wishes to elaborate, the apple will be found available for fancy cooking as well as for that which is plain. There are apple fritters, apple custard, apple tarts, which explain themselves with the mere mention. Combinations with gelatine, lemon and white of egg make pretty and delicate jellies and sponges, which may be made as tasteful and decorative as may be with dainty colorings and ornamentation.

"Nuts and apples form a natural partnership, and at this time, when the food value of nuts is much urged, it is a combination in high favor. One of the best and simplest modes is by paring and coring good cooking apples and filling the cavity with chopped nuts — hickory nuts, butternuts, or English walnuts and pecans being especially suitable. A little lemon juice and sugar may be mixed with the nuts and the whole baked in a covered dish with a very little water in the pan. Remove the cover and glaze the top when the apples are tender. Or the latter may be covered with tapioca, first cooked to a transparent jelly. Baked sweet apples are a hearty food in themselves; combined with milk a complete food, and, some enthusiasts say, more nourishing and wholesome than the whole range of meat and vegetables. Nuts are equally good with sweet apples, and worth trying in this form. Steamed and covered with whipped cream, these stuffed apples make a very dainty dish. Stiffly beaten whites of eggs and powdered sugar to make a meringue, flavored with lemon or almond, makes a handsome finish for the dish of apple tapioca."



GATHERING FANCY NEWTOWNS.

Recipes for the Lenten Season

THE Lenten season is again here and in many households fish and egg dishes will be the rule of the day. Some pointers from the market man on the subject of fish at this season will be of interest. A large dealer in discussing Lenten fish said: "The most popular items of salt fish during this period are salt mackerel and the codfish, both of which are wholesome and when properly prepared make a tempting meal. Of mackerel there are many varieties as well as grades, and the epicure is never contented until he has found the merchant who has the best grade, and as the price of the very choicest mackerel obtainable never is as much as the cost per pound of the best cuts of steak, it cannot be called a luxury.

"Many people do not stop to consider that there is just as much difference in the eating quality of fish as there is in meat. The physical condition of fish has all to do with its eating qualities. Meat from a well fed, fat Texas steer is much more delicious than that from a half-starved Shorthorn from the barren prairies of western Kansas, and so the mackerel that comes from far away Norway as well as from the coasts of Ireland are far more desirable than much of the poor, thin, tasteless fish that are caught during the early season on the American coast.

"Of the various kinds of cured salt fish, perhaps the codfish is the most desirable of any that come from the old seagirt town of Gloucester. For those who want a cheaper grade of fish there are the cusk, the haddock, the pollock and the hake, and when these are nicely dressed and boned and served up by one who is accustomed to preparing fish they will be found to be very tempting."

Of course those who can secure it will use large quantities of fresh fish, and then there are the canned goods as well. It may often be necessary to prepare dishes from left over fish and when such is the case it makes an attractive dish to form in a fish mold and cook in that manner. Fish and eggs are the pre-eminent meat substitutes during Lent and we are giving below a number of recipes of savory dishes for both.

OYSTER CATSUP.

Get fine fresh oysters, wash them in their own liquor, put them in a marble mortar with salt, pounded mace, and cayenne pepper, in the proportions of one ounce salt, two drachms mace, and one of cayenne to each pint of oysters; pound them together, and add a pint of white wine to each pint; boil it some minutes, and rub it through a sieve; boil it again, skim it, and when cold, bottle, cork, and seal it. This composition gives a fine flavor to white sauces, and if a glass of braudy is added it will keep good for a considerable time.

TURBANS OF FISH IN RAMEQUINS.

For eight ramequins have two small slices of halibut cut entirely across the fish; remove the skin and bone, thus securing eight "fillets" of the same shape and size. Trim these, if when rolled they will be too large for the ramequins. Dip the fillets in melted butter; squeeze over them the juice of half a lemon and a little onion juice and sprinkle with a little salt. Commencing at the widest end, roll each fillet into a "turban" and push a wooden toothpick dipped in melted butter through the turban, to hold it in shape. Set the prepared turbans in an agate pan, pour in a little fish stock (made by simmering the bones and trimmings of the fish with a few slices, each, of carrot and onion in water to cover) and put a teaspoon of butter on each. Cook in a moderate oven about fifteen minutes. Baste three or four times with the liquid in the pan. When the turbans are cooked, drain off the liquid and add to it enough cream or milk to make a cup and a half in all. Melt three tablespoons of butter; cook in it three tablespoons of flour and one-fourth of a teaspoon each of salt and pepper; add the liquid and stir until boiling. Set the turbans in the ramequins, pour sauce over and around them, cover and serve at once.

LOBSTER QUENELLES.

Use the meat from a good-sized cooked lobster, three ounces of breadcrumbs, a gill of good white stock, one and a half ounces of butter, salt and pepper, a little chopped lemon peel, two eggs. Pound the lobster with the other ingredients, reserving the whites of eggs, pass through a sieve, and add the whites of eggs beaten to a stiff froth, and mold them with a dessert spoon and poach gently for twenty minutes; dish them in a circle in an entree dish, pour over them enough good white sauce to cover entirely, and make a filling for the center as follows: Three whole eggs, put in a small pan with salt and pepper, one tablespoon of rich cream, stir over the fire till quite set, put in the center of the quenelles, and garnish round with little tufts of finely chopped parsley.



EGGS A LA CREME.



STUFFED EGGS IN TOMATO SAUCE.

LOBSTER AU GRATIN.

Split a good-sized lobster in half, taking care not to break the shell. Pick out the flesh carefully and mince, seasoning it with a little chopped parsley, grated nutmeg, salt and a few grains of cayenne pepper. Mix a tablespoon of flour with a teacup of milk, boil for a few minutes, then stir in smoothly the seasoned lobster mixture, add the strained juice of a lemon, and draw off the fire to cool. Stir in the beaten yolk of an egg, then divide the mixture between the shells, cover each with breadcrumbs, place two or three little pieces of butter on top of each, then brown with a salamander under grill or in hot oven. Dish on a serviette, garnished with slices of cut lemon and anchovies.

FISH SOUFFLE.

Melt and mix in a saucepan two tablespoons each of butter and flour. Cook two minutes without browning, add a cupful of hot milk and stir until smoothly thickened. Season with a half teaspoon of salt, dash of cayenne, one teaspoon of onion juice; add three tablespoons of chopped parsley, take from the fire and stir in the beaten yolks of three eggs and one cup of any kind of cold cooked fish freed from skin and bones and finely flaked. Stir again over the fire until the eggs slightly thicken the mixture, then set aside, covered, until cold. Whip the whites of the eggs to a stiff froth and stir lightly into the chilled mixture. Turn into a greased dish, bake in a hot oven till well puffed up and brown—about twenty minutes—and serve at once, as it soon falls.

EGGS A LA CREME.

Fill a buttered baking dish with alternate layers of sliced hard boiled eggs and cracker crumbs, seasoning to taste with salt and pepper. Dot well with butter, moisten with a cup of thin cream and set in moderate oven until thoroughly heated and browned, and serve.

PATE OF CODFISH.

Boil one cup of oyster liquor, stir in two tablespoons of cornstarch wet with cold milk. When it thickens add three tablespoons of butter and a little pepper, then one cup of fish (which has been soaked, boiled and flaked). Heat and stir in three chopped, hard-boiled eggs. Take from the fire and cover over a pot of boiling water fifteen minutes. Line a buttered mold with puff paste, pricking at the bottom. Cut a round piece for a cover and bake separately. Bake both in a quick oven. When almost cold turn out the paste shell and fill with fish, fit on the top and invert onto a hot plate.

FINNAN HADDIE WITH TOMATOES.

Take one and a half pounds of finnan haddie, two tablespoons of flour, three tablespoons of butter, a dash of pepper, three tablespoons of minced onion, two cups of tomato juice and two tablespoons of minced green peppers or pimentos. Freshen the finnan haddie, then boil it gently for thirty minutes. Flake it into large bits with two forks, carefully removing all the bones. Melt the butter in a saucepan, fry the onion and pepper in it until softened, add the flour and gradually the tomato juice. Let the mixture boil, add the fish, and when it becomes very hot serve it at once with plain boiled and seasoned macaroni.

of flour, two tablespoons of butter, half a teaspoon of salt, a dash of pepper, herring and buttered toast.

Make a sauce of the butter, flour, milk and seasonings. Chop the egg whites coarsely, add to the sauce and pour over the buttered toast. Rice the egg yolks over this, and finish each slice of toast with small strips of herring which have been dotted with butter and heated in the oven.

Smoked or kippered salmon, as it is termed in England, owes its flavor to the smoking process, and the length of time to be consumed in freshening it depends upon the saltness of the fish and must be left to the good judgment of the cook. This fish is especially substantial when served plain boiled, with a melted butter dressing, on a bed of well-cooked and seasoned spinach.

SPAGHETTI AND EGGS.

This recipe requires one-quarter pound of spaghetti, four hard-boiled eggs, one ounce of butter, one ounce of grated cheese, one-fourth pint of white sauce, salt and pepper. Put the spaghetti in a pan of fast-boiling water, and cook it until tender, then drain it well. Thickly butter a pie-dish, put in a layer of spaghetti, then one of slices of hard-boiled egg; dust these with a little salt and pepper. Next put in some more spaghetti, then more slices of egg, and so on until the dish is full, ending with spaghetti. Pour the white sauce over this, and sprinkle the cheese on it; put the rest of the butter in little lumps on the top. Bake it in a quick oven for ten minutes, then serve in the dish in which it is cooked.

PIQUANTE EGGS.

Take four eggs, one ounce of butter, one tablespoon of



BUTTERED EGGS. LEFT-OVER FISH IN FISH MOLD.

STUFFED BASS.

Clean the fish. Dip soda crackers into boiling water a second, then mix in one tablespoon of butter, and salt and pepper to suit; add as many small raw oysters as desired and stuff the fish, drawing the loose flesh over the opening together with clean twine. Lay the fish on thin slices of pork and place a few more on top. Bake from twenty to forty minutes, according to size of fish.

SALT CODFISH SOUFFLE.

Take one cup of shredded codfish, two tablespoons of flour, two tablespoons of butter, a fourth of a tablespoon of pepper, three eggs, one teaspoon of minced parsley, two cups of milk, one cup of soft breadcrumbs and a fourth of a teaspoon of onion juice. Make a white sauce of the butter, flour and milk. Freshen the codfish, rinse well, then add to sauce with the seasonings and crumbs. Separate the eggs and beat the yolks light. Stir them into the mixture, fold in the whites beaten stiff, and pour all into a buttered baking-dish. Surround with hot water and bake thirty minutes in a rather slow oven. Serve the souffle at once in the dish in which it is baked.

STUFFED EGGS IN TOMATO SAUCE.

Cut six hard boiled eggs in half, crosswise, and remove the yolks. Mash these fine with a spoonful of butter, half a cupful of bread crumbs slightly moistened with milk and a little finely minced parsley or scraped onion, and salt and pepper to taste. Fill the halves firmly with this mixture, press them together, and serve in hot tomato sauce garnished with parsley.

SMOKED HERRING WITH CREAMED EGGS.

Take six hard-boiled eggs, two cups of milk, two tablespoons

Worcestershire sauce, salt and pepper. Thickly butter a fireproof dish; failing that, use a pie dish. Break the eggs carefully into it, sprinkle them with salt, pepper and the sauce. Place the dish in a pan with hot water to come half way up it, lay a piece of greased paper across the top of the dish, and put the lid on the pan, and let the water boil gently until the eggs are lightly set. Then serve them at once in the dish in which they were cooked.

BUTTERED EGGS.

Take a clean enameled saucepan or frying pan and melt a small quantity of butter in it. Beat up two eggs and when well beaten put in the pan with the butter and continue to beat until cooked, add seasoning and make little piles of this mixture on diamonds or rounds of buttered toast, sprinkle the top with a little finely chopped parsley and serve hot or cold.

FISH CHOWDER.

Three pounds of fresh fish, three large potatoes, large onion, pint of milk, three crackers, half a pound of salt pork, pepper and salt. Cut the fish, potatoes and onions into slices; cut the pork into half inch dice; put the pork and onion into the pan and fry them a light brown. Place in alternate layers in a large saucepan—first potatoes, then fish, then pork, then onions. Dust with salt and pepper and continue in this order until all the materials are used. Cover the whole with boiling water and let the mixture simmer for 20 minutes. Scald a pint of milk or cream, take it off the fire and add one and a half tablespoons of butter and the broken crackers. Arrange the fish mixture in a mound on a dish, cover with the softened crackers and pour over the whole the hot milk.

SEASONINGS AND SAUCES FOR VEGETABLES.

BY MARIA PARLOA.

MUCH of the excellence of vegetables depends on proper use of seasonings and sauces. The seasoning selected should undoubtedly be suitable for the dish, but so much depends upon custom that only general suggestions can be made. The Italians and some other races are much fonder of garlic than Americans, the Germans of summer savory or "bohnenkraut" in string beans, and the English of mint with peas. Each housewife must select the seasonings which her family prefers and endeavor to use them in such a way that the special flavors may be most satisfactorily brought out.

When a soup, sauce, or vegetable is to be flavored with an herb or another vegetable the flavorer should be added toward the end of the cooking period. Since the oils and other bodies which give seasoning vegetables and herbs their flavor are volatile they are either driven off by long-continued cooking or rendered much less delicate in flavor. Herbs that are to be left in the dish or served with the dish must be added just before the food is served. The herbs generally served with the dish are chervil, parsley, tarragon, and chives.

Burnet, thyme, summer savory, sage, and sweet basil are cooked with the dish a short time, not over twenty minutes, and are then removed.

The little bunch of mixed herbs, the "bouquet garni," so often referred to in cook books, is made with two branches of parsley, a sprig each of thyme and summer savory, a small leaf of sage, and a small bay leaf, all tied together. This is cooked with the dish from ten to twenty minutes, then removed. The bay leaves must be purchased at the grocer's. Turnips, carrots, parsnips, celery, leeks, cibol, onions, etc., when used just as flavorers, should be tied in a bunch and cooked twenty or thirty minutes in the dish and then be removed.

When shallot and garlic are used they should never be cut, but separated into "cloves." One clove will be enough for a small quantity of soup, sauce, or ragout. Never fry shallot or garlic. Cook in the dish to be flavored about ten minutes, then remove.

Vegetables when used raw as a seasoning give a strong flavor, and only a little of each should be used. For flavoring soups, sauces, stews, etc., fried vegetables are far superior to the raw. To prepare them for use, clean and peel or scrape the vegetables, then cut them into small pieces, and put in a saucepan with butter or sweet fat, allowing two generous tablespoonfuls of butter to a pint of vegetables. Place on a hot part of the range and stir until the butter and vegetables become hot. Partally cover the saucepan and set back, where the vegetables, which should be stirred often, will cook slowly for half an hour. At the end of this time place the pan on a hot part of the range and stir the contents until the butter begins to separate from the vegetables. Drain the butter, saving it with savory drippings, which every housewife should have on hand and add the vegetables to the dish they are to flavor.

In its broadest sense, the term "fine herbs" includes all the delicate, savory herbs, such as burnet, sweet basil, tarragon, and chervil. As commonly understood, three herbs enter into the seasoning known to cooks as "fine herbs;" these are parsley, chervil, and chives. They are minced fine and added to the sauce, soup, omelet, etc. For an omelet, they are stirred into the beaten eggs in the proportion of a teaspoonful to three eggs. When added to sauces, the herbs must be added just as they are about to be served. These three herbs combine well with almost any vegetable, fish, or meat. In general, herbs should be washed, placed on a clean board, and cut with a sharp knife.

Chervil and tarragon when employed in soup or salad should be torn leaf by leaf into small pieces.

Strip about three ounces of leaves from the branches of tarragon; put into a quart fruit jar and fill with good vinegar. Close and let stand for about twenty days, then strain. The best vinegar to use for this purpose is white wine vinegar, but good cider vinegar will also answer. The best time to make tarragon vinegar is about the last of August, when the plants are large and vigorous. Tarragon vinegar may be used for salads and sharp sauces, when the fresh herb is not available.

It is almost universally conceded that vegetables require the addition of fat in order that they may be at their best, and there is no fat which is so suitable as butter for the majority of vegetables, judged by the texture of the dish and also by the flavor.

The American housekeeper has a way of looking upon the use of butter, milk, cream, and eggs in the preparation of vegetables, soups, and sauces as if these ingredients were simply "trimmings" and not food. But it should be remembered that these articles are valuable foods and naturally increase the food value of the dish of which they form a part. They are all wholesome, and, although almost always more expensive than the vegetable foods with which they are combined, their use in reasonable quantities is certainly to be recommended.

Increasing the cost of the dish by the free use of butter, cream, etc., may after all be economy if the increase is intelligently made, and the vegetable soups, purées, etc., made "hearty" as well as appetizing by the addition of butter, eggs, etc., are combined with smaller quantities of meat and with light and simple desserts.

As a substitute for butter in seasoning vegetables there is nothing better than sweet, savory drippings. Not all meats supply fats that are savory in the sense in which the word is employed here. The following fats may be employed alone or in combination for seasoning vegetables: The fat from fried sausages, ham, bacon, and pork, and from roast pork, veal, and chicken. Fats trimmed from poultry, veal, pork, and ham may be fried out carefully and saved for use in cooking vegetables. Such fats have a flavor which comes from seasoning, as in sausage, from smoke, as in ham and bacon, or from brown material, as in roast meat. The fat skimmed from the water in which poultry has been boiled and the fats skimmed from the gravies of most roast meats may be clarified and also employed in the preparation of vegetables for the table. Great care must be taken that all these fats are clean and sweet, and that the temperature at which they are fried out shall not be so high as to impair the flavor. Burned or scorched fat is not only unpleasant in flavor, but is a frequent cause of indigestion.

When rendering the trimmings of fat meat, add a small onion or a shallot (do not cut them), a few leaves of summer savory, and thyme, a teaspoonful of salt, and a little pepper. This seasoning is enough for half a pint of fat. Keep the drippings covered, and in a cool, dry place.—Government Bulletin.

CANNED FOODS WEEK.

Every effort is being made by the National Canners' Association, assisted by other associations, including both the retail and wholesale national grocers' associations, to make Canned Foods Week, March 31-April 6, a success. Canned foods is a subject which has been much discussed by the public for a long time, and during the week that has been set aside as Canned Foods Week it is designed to pay special attention to demonstrating this class of foods, their cleanliness, healthfulness and economy.

For several years the canners of the United States have been putting on the market canned foods of all varieties of superior quality as many housekeepers have demonstrated, with the result that they have given up altogether the home canning of fruits and vegetables. Sanitary appliances have been invented and put into use that take the fruit from the field, and without the touch of human hand prepare it for the table of the consumer.

During Canned Foods Week it is expected that every grocery or table provisioning store will have on display and for sale canned foods of all varieties. It is intended to put up mixed varieties and sell them at such prices as to induce the consumer to make a thorough test, if this has not been done previously, of all kinds of canned foods now packed for consumption. It would be well for all to consider this subject of canned foods seriously in reference to their larger use in order to reduce the cost of living so much complained of at present. We hope that Canned Foods Week will prove a great success, dealers and consumers both standing to gain by increased consumption of this class of foods.

OYSTER GROWERS WELCOME LEGISLATION.

The Connecticut oyster growers are favoring legislation in that state which is designed to establish a closer guardianship over the oyster industry by the state than heretofore exercised. This the oyster people rightfully consider would give their products greater confidence in the minds of the public and redound to the benefit of the oyster growing industry. It is also contended that if the state demands a higher tax from the oyster growers it would be expected that the commonwealth do something toward preventing the polution of waters where oysters are grown.

Appellate Court Decision in Bleached Flour Case

PROBABLY no case so far brought by the government under the National Pure Food and Drugs Act has attracted more attention than that popularly known as the bleached flour case. The issues involved were of far-reaching effect, and the case closely fought on both sides. We are accordingly devoting considerable space to the decision recently handed down by the U. S. appellate court, which reverses the decision of the lower court and remands the case for new trial, and we give herewith the decision in full.

In construing the decision of the U. S. court of appeals, it is first to be borne in mind that the case tried was considered by the government the strongest one to support its contentions. It was deliberately selected by the government for trial out of some fifteen or more cases which it might have tried. If the government could not sustain its contentions in this case it would seem to follow as a logical consequence that it will never be able to sustain them. Moreover, the case was tacitly understood by all parties to be a test case, and while legally involving only the flour seized, it, by implication, involved the legality of the electrical bleaching process. The main contention was as to the instruction of the trial court to the jury that the government need not prove the flour was harmful to the consumer, and that the character, not the quantity, of the added substance must determine the case. The court's ruling unequivocally sustains the position that a trace of nitrite in flour must be found as a fact to render the flour injurious to health before the flour can be held to violate the law. The decision is, in effect, a direct contradiction of the Wiley theory urged in the benzoate of soda and saccharine cases that substances known to be harmful in large quantities are proportionately harmful in less quantities. The government, with the strongest array of expert witnesses possibly ever brought together in a court, and after months of experimentation did not, and could not, offer the slightest evidence that the flour seized was harmful. The conclusion on this point is that the question of the harmlessness of bleached flour must be regarded as being forever settled.

Next in importance was the contention of the government, which was originally urged in the press and from the platform of Dr. Wiley, that the bleaching process is in and of itself deceptive in that it destroys the distinction between grades of flour, and enables the miller to palm off a lower grade for a higher grade. The court finds that there was no merit in this contention; that color is not always an indication of grade; that, as a matter of fact, improved milling methods may be used to produce lighter colored flour; that no one has a monopoly on making white flour; and that bleached flour does not deceive nor tend to deceive the purchasing public.

On the score of misbranding the court holds as a fact that the wheat milled was hard wheat, and that the flour sold was "patent" flour under the court's finding that "patent" flour was anything less than the total flour content of the wheat.

On the sole point as to injuries to the bread-making quality of the flour the Court, without discussing the testimony holds that there was evidence on both sides, and that this point was properly submitted to the jury, but there was no special finding of the jury on this phase of the case.

All other points in the case were held to have been erroneously submitted to the jury.

After reading the decision of the court of appeals, and with a full knowledge of the facts concerning the flour bleaching process, one is forced to marvel at the enormous expenditure of time, money and energy that was involved in litigating a question that was almost purely academic. The total expense to the government could not have been far from $100,000.00. The expense to the Alsop Process Company and the millers was approximately $50,000.00, we are reliably informed. The government called forty witnesses, of whom sixteen were experts; the claimant called forty-eight witnesses, of whom thirteen were experts. All of the experts for both sides were men of the highest standing, many of them, on each side, with world-wide reputations. The trial lasted approximately six weeks. The costs will never be known, because costs are not assessed against the government. The record alone covered 2,149 printed pages. And what grave question was at issue? Just this: That a mere negligible trace of a substance called nitrite, which only by the use of the most delicate test known to science can be found in flour that has been improved by the process, and which rarely ever is found in the bread made from it, renders the flour an adulterated product. In order that the lay mind may understand how exceedingly attenuated was the issue in controversy, we will explain that the seized flour contained a fraction over two parts of nitrite per million parts of flour. Now sodium nitrite is a well known medicinal agent. It is present in the saliva of every human being, often in far greater quantities than it occurs in bleached flour, and willy nilly, every mother's son of us must swallow relatively large quantities of it every day of our lives. Moreover, the smoked ham of the farmer fairly reeks with it, and many fruits and vegetables contain it as a natural ingredient in minute amounts. These are undisputed facts, not theory. Now, if minute amounts of nitrites are harmful to the system, it must inevitably follow that the human race would long since have ceased to exist, by reason of a continued process of involuntary poisoning. Nature and experience had completely answered the claim of harmfulness. It was not open to question. But nitrites in large quantities are known to be harmful, and the government *theory* was that a thing which is harmful in large amounts is harmful in some degree in smaller amounts, down to the molecule. But ordinary table salt is a poison in large quantities and so are many other condiments and natural food products. In order to uphold the above theory, the trial court gave a construction to the law which would absolutely have rendered liable to seizure any article containing salt and shipped in interstate commerce. It would have rendered liable to seizure every smoked ham shipped by the farmer into interstate commerce.

It also transpires that flour naturally takes up nitrites when exposed to the air. You cannot possibly prevent it, because not only do we swallow nitrites, but they are likewise in the air, and we are constantly breathing them. The construction of the law by the trial court, therefore, involved the peculiar theory that you may safely expose your flour to the air and let it take up traces of nitrites, but if you bleach your flour, and let it take up traces of the same nitrites, your product is adulterated. There was just one way the government could get a verdict in the face of these obstacles, and that was to maintain that it is not essential, under the law, to prove the product harmful in fact, but only that it contained an added substance which was harmful in character. But the court of appeals swept all these refinements aside. It said the law was to protect the public; that the public was only concerned in being assured of getting pure and wholesome foods, and that there was no power under the law to condemn a product which was perfectly harmless. And just remember, too, that all this expenditure of time, money, talent and energy was about a thing which had not the slightest practical concern for the public, because the evidence was that the mere trace of nitrites occurring in the flour is in almost all cases wholly eliminated in the process of baking; and further that nature's laboratory puts a substance called urea in the saliva and digestive fluids which unfailingly destroys minute amounts of nitrites, and renders it impossible that they should work harm.

As a matter of fact, this whole question of harmfulness was never more than a talking point—talking print—a thing to be used as a scare-crow. We know as a fact that the government experts had no confidence in it. It was only raised at the behest of Dr. Wiley and a number of notoriety-seeking extremists and so-called food reformers. Bleached flour is as pure and wholesome as any other flour, because it is nothing more nor less than flour. One can as consistently complain of the workings of nature's own laboratory as to complain of it.

The whole case of the government was originally based on the hypothesis that the process was used for purposes of fraud and deception. This is what it was really and sincerely concerned about. The claimant's contention that it was not so used, and could not be so used, is wholly upheld by the decision, the court of appeals stating that the trial court committed error in ever submitting the question to the jury.

The Decision in Full.

UNITED STATES CIRCUIT COURT OF APPEALS.
EIGHTH CIRCUIT.

No. 3533—December Term, A. D. 1912.

Lexington Mill & Elevator Company, claimant, *Plaintiff in Error*, vs. United States of America, *Defendant in Error*.	In Error of the District Court of the United States for the Western District of Missouri.

No. 3534—December Term, A. D. 1912.

Lexington Mill & Elevator Company, claimant, *Appellant*, vs. United States of America, *Appellee*.	Appeal from the District Court of the United States for the Western District of Missouri.

Mr. Edward P. Smith and Mr. E. L. Scarritt (Mr. Bruce S. Elliott, Mr. A. E. Helm, Mr. C. J. Smyth and Mr. W. C. Scarritt were with them on the brief) for plaintiff in error and appellant.

Mr. Leslie J. Lyons, United States Attorney, and Mr. Pierce Butler, Special Assistant Attorney General (Mr. William G. Graves was with them on the brief) for defendant in error and appellee.

Before Sanborn, Circuit Judge, and Wm. H. Munger and Marshall, District Judges.

Proceedings by the United States of America to forfeit six hundred and twenty-five sacks of flour—Lexington Mill & Elevator Company, claimant. Trial was had to a jury and verdict rendered in favor of the United States. From the judgment entered thereon, the claimant brings error and appeal.

3533 }
3534 }
Lexington Mill & Elevator Co. vs. U. S. of A.

Marshall, District Judge, delivered the opinion of the Court.

The Lexington Mill & Elevator Co. is a corporation of the State of Nebraska and is engaged in the manufacture of flour at Lexington, Nebraska. On April 1, 1910, it shipped from Lexington to B. O. Terry at Castle, Missouri, six hundred and twenty-five sacks of flour manufactured by it. On April 9, 1910, a libel was filed by the United States under the provisions of Sec. 10 of the Food and Drugs Act, 34 Stat. 768, and a warrant of seizure issued, by virtue of which the flour was seized under the claim that it was adulterated and misbranded in violation of the provisions of the Act. The Lexington Mill & Elevator Company appeared as claimant. It averred that it had sold the flour under a guarantee that it was not adulterated within the meaning of the Food and Drugs Act, and that pursuant to that guarantee it had furnished to the purchaser other flour in lieu of that seized, and had become the owner of the flour in litigation. It was permitted to answer the libel and the case was then tried to a court and jury with the result that the United States had a verdict that the flour was adulterated and misbranded. From the judgment of condemnation rendered on this verdict the claimant prosecutes an appeal and a writ of error. A motion is made to dismiss the appeal and this must be sustained.

The act under which this libel was filed provides in Sec. 10 for the process of libel for condemnation and that "The proceedings of such libel cases shall conform, as near as may be, to the proceedings in admiralty, except that either party may demand a trial by jury of any issue of fact joined in any such case, and all such proceedings shall be at the suit of and in the name of the United States." This did not change the essential character of the action or make it other than an action at law. As a matter of procedure it has to conform "as near as may be to proceedings in admiralty," but a trial by jury at the demand of either party is provided, and a review of the facts so tried by appeal was not expressly granted. The question as to the proper method of review was decided in this Court in the case of United States vs. Seven Hundred and Seventy-nine Cases of Molasses, 174 Fed. 325. The Supreme Court of the United States has had occasion to pass on the principle involved in cases arising under the Act of July 17, 1862, entitled "An Act to suppress insurrection, to punish treason and rebellion, to seize and confiscate the property of rebels and for other purposes," which provided that the proceedings against the property seized shall be *in rem* and "shall conform as nearly as may be to proceedings in admiralty or in revenue cases." That Court held that a writ of error was the only method of review. The appeal in No. 3534 will be dismissed and jurisdiction will be taken of the writ of error in No. 3533.

Before a consideration of the questions arising on the writ of error a more complete statement of the facts is necessary. The claimant in the manufacture of the flour seized uses the Alsop patented process. A complete description of this process may be found in the opinion of this Court in Naylor vs. Alsop Process Co., 168 Fed. 911. It is sufficient for the present purpose to say that by it nitrogen peroxide gas is formed by electric discharges. This gas mixed with air is brought into contact with the freshly milled flour with the result of bleaching it. The method is this: In a small chamber one electrode is fixed; the other is given a reciprocating motion so as to alternately touch and separate from the fixed electrode. A current of high potential is used. The circuit is completed by the contact. Separation of the electrode results in an arc. The inert nitrogen of the air is oxidized and nitrogen peroxide gas formed. This gas diluted by mixture with air is conveyed to a box or agitator, through which the flour is permitted to fall and the bleaching is at once effected. The chemical reaction seems to be as follows: The nitrogen

peroxide gas coming in contact with the moisture of the flour, splits and forms nitric and nitrous acids, both oxidizing agents, but the nitric acid the more powerful. The nitric acid certainly and the nitrous acid probably unite with the coloring matter of the flour and bleach it. Nitrites are formed by the union of the nitrous acid and the bases in the flour and nitrates by the union of the nitric acid with those bases. The nitrates may be disregarded as non-injurious; the nitrites are claimed to be poisonous. The flour seized was subjected to the Griess-Ilsovay test, an extremely delicate test for the detection of the presence of nitrites and was shown to contain nitrites or material reacting as nitrites to the amount of three parts per million. The misbranding is predicated on this. The sacks containing the flour were labeled "L 48, Lexington cream XXXXX, fancy patent. This flour is made of first quality hard wheat." In fact, the flour was milled from Turkey red wheat. This wheat replanted from year to year gradually degenerates and becomes mixed with a wheat of a yellow color, called locally "yellow berry." This admixture with yellow berry deteriorates the quality of the wheat. The wheat in question contained this yellow berry to the extent of from fifteen to twenty-five per cent of its total quantity. Both Turkey red and yellow berry are hard wheats. This wheat graded as No. 2, and this was the best grade of wheat grown or milled in Nebraska or neighboring states. In other sections of the country wheat grading as No. 1 is grown. There can be milled from the same wheat flour of different grades. That flour which contains the entire flour content of the berry is called "straight flour"; patent flour excludes a part of the flour content; that part of the berry nearest the bran coat containing the greater part of the oil and coloring matter. Clear flour is the residue of the flour content of the wheat after taking out the patent flour. The result is that patent flour is whiter than straight and straight is whiter than clear flour.

The jury found separate verdicts, (1) that the flour seized was adulterated, and (2) that it was misbranded. The Court charged the jury: "It is clear that it was intended by Congress to prohibit the adding to the food of any quantity of the prohibited substance. The fact that poisonous substances are to be found in the bodies of human beings, in the air, in potable water and in articles of food such as ham, bacon, fruits, certain vegetables and other articles does not justify the adding of the same or other poisonous substances to articles of food, such as flour, because the statute condemns the adding of poisonous substances. Therefore, the court charges you that the Government need not prove that this flour or foodstuffs made by the use of it, would injure the health of any consumer. It is the character, not the quantity of the added substance, if any, which is to determine this case." This was excepted to and was assigned as error. There was evidence tending to prove that flour containing the percentage of nitrites found in the seized flour, might be injurious to health when used as a food for a considerable period, but this was disputed, and the converse supported by substantial testimony. This was the most stubbornly contested issue in the case, and that it was an issue was recognized by the Government at all stages of the trial.

The part of the statute material to a consideration of the correctness of this instruction is found in Sec. 7 of the Act, which reads:

"Sec. 7. That for the purposes of this Act an article shall be deemed to be adulterated:

"In the case of food:

"First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

"Second. If any substance has been substituted wholly or in part for the article.

"Third. If any valuable constituent of the article has been wholly or in part abstracted.

"Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.

"Fifth. If it contain any added poisonous or other added deleterious ingredient which may render such article injurious to health....."

The instruction complained of referred to the charge in the libel under the fifth subdivision just quoted. The trial judge decided that if the added substance was qualitatively poisonous although in fact added in such minute quantity as to be non-injurious to health that it still fell under the ban of the statute; and the distinction is sought to be drawn between substances admittedly poisonous when administered in considerable quantities but which serve some beneficial purpose when administered in small amounts, and those substances which it is claimed never can benefit and which in large doses must injure. This distinction is refined. To apply it must presuppose that science has exhausted the entire field of investigation as to the effect upon the human body of these various substances; that nothing remains to be learned. Otherwise the court would be required to solemnly adjudge today that a certain substance is qualitatively poisonous because it can never serve a useful purpose in the human system only to have this conclusion made absurd by some new discovery. There is no warrant in the statute for such a strained construction. The object of the law was evidently (1) to insure to the purchaser that the article purchased was what it purported to be, and (2) to safeguard the public health by prohibiting the inclusion of any foreign ingredient deleterious to health. Hall-Baker Grain Co. vs. United States, 198 Fed. 614. The statute is to be read in the light of these objects, and the words "injurious to health" must be given their natural meaning. It will be observed that this paragraph of the statute does not end with the words "added deleterious ingredient" but as a precaution against the idea embodied in the instruction complained of, it says "which may render such article injurious to health." Without these latter words it might, with more force, be argued that deleterious and beneficial ingredients are to be divided into two general classes independent of their particular effect in the actual quantities administered, but the possibility of injury to health due to the added ingredient and in the quantity in which it is added, is plainly made an essential element of the prohibition. The investigation does not stop with the consideration of the poisonous nature of the added substance. It is added to the article of food and the statute only prohibits it if it may render such article—the article of food—injurious to health.

In French Silver Dragee Co. vs. United States, 179 Fed. 824, this question was considered by the Court of Appeals of the Second Circuit. In that case adulteration was charged in confectionery by the addition of silver. The statute declares that confectionery shall be deemed to be adulterated "if it contain terra alba, barytes, talc, chrome yellow, or other mineral substance or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt or spirituous liquor or compound or narcotic drug." The element of injury to health is not expressed as a qualification of mineral substance. Silver is admittedly a mineral substance and the act of the defendant was within the letter of the prohibition, but the court construing the statute in the light of the evils it was intended to remedy, the objects sought to be accomplished, held that there was implied in this clause to confectionery the very limitation expressed in the paragraph relating to food, and as there was no proof that the coating of silver might render the article injurious to health, it did not fall within the ban of the statute. It was there said: "Stated in another way we think that the history of the Act, the objects to be accomplished by it and the language of all its provisions, require that it should be so interpreted that in the case of confectionery as in the case of foods and drugs, the Government should establish with respect to products not specifically named that they either deceive or are calculated to deceive the public or are detrimental to health."

In Friend vs. Matt, 68 J. P. 589, there was under consideration Sec. 3 of 38-39 Victoria, Chap. 63, which reads: "No person shall mix, color, stain, or powder or alter, or permit another person to mix, color, stain or powder any article of food or any ingredient or material so as to render the article injurious to health." In that case the respondent was charged with selling preserved peas, the color of which had been retained by the addition of sulphate of copper. It was contended that as sulphate of copper in substantial quantity was injurious to health, the peas so treated with it were within the statute even if the treated peas were not injurious to health. This view prevailed in the trial court, but the judgment was reversed on appeal, Lord Alverstone, Chief Justice, saying: "I have no doubt that in order to convict under Sec. 3 the article of food must be shown to be injurious to health by the addition of some ingredient."

The instruction complained of eliminated a consideration of any possible injurious effect from the use of the flour as an article of food, and was erroneous. We are not unmindful of the contention that the evidence conclusively shows that flour subjected to the bleaching process is injurious to health in some degree, even if its injurious effect is so slight as to be incapable of observation, and that, hence, the instruction we have found to be error was error without prejudice. This contention is founded upon expert testimony as to the result from the taking of nitrites into the human system. It is said that nitrites taken into the human body act upon the coloring

matter of the red corpuscles of the blood so as to change the hemoglobin of the blood into methemoglobin. In the language of one of the chief chemical experts of the Government this effect is thus described:

"In the blood stream there are red corpuscles, invisible to the naked eye, which contain a red coloring substance known as hemoglobin, when not combined with oxygen, and when combined with oxygen forming a dissociable compound, oxyhemoglobin. In respiration, the hemoglobin contained in the red corpuscles of the venous blood is brought into the lungs, where it having an affinity for the oxygen, which is one of the gaseous constituents of the air, combines with the oxygen to form oxyhemoglobin. This oxyhemoglobin contained in the red blood corpuscles is then conveyed, through the arterial system to the various parts of the body, and of the terminals of the arterial system, passing through a mass of tissue, it gives up its oxygen, to oxidize the tissues, or materials that may be in solution there, to form carbon dioxide, and to form water, and this oxyhemoglobin is thereby reduced to the condition of hemoglobin which is returned by the venous system to the lungs, to be again oxygenated. That is where the hemoglobin will again combine with oxygen to form oxyhemoglobin, and a given quantity of hemoglobin may serve to carry a given quantity of oxygen to the system. Now, however, if any of this hemoglobin is converted into methemoglobin, which is a compound of oxygen and hemoglobin, in which the oxygen is more firmly combined than in the case of oxyhemoglobin, although the quantity of oxygen is the same, the oxygen is so firmly attached—combined with the hemoglobin—that the vital processes are not sufficiently strong to separate the oxygen from the hemoglobin, nor to use the oxygen to oxidize the tissue and tissue material, to sustain life, and, consequently, it passes through the circulation to the arterial system and the venous system, and continues this cycle until, finally, it is destroyed by the liver. Therefore, a certain quantity of the hemoglobin is rendered inefficient. It no longer functionates as a carrier of oxygen to the system, serves, or acts, as a foreign body in the blood circulation, and, therefore, must be removed. As I have said before, an extra strain is placed upon the liver, in order to remove it, and an extra strain is placed upon the red blood marrow, in adults, to regenerate the corpuscles, and to replace the corpuscles of the hemoglobin that have been rendered inactive by the action of nitrite, and the formation of methemoglobin." It is also said that the continued presence of nitrites in the system does not develop any tolerance on the part of the body or means of neutralizing its normal action. On the other hand, it was proved that no injurious effect had ever been observed from the use of bleached flour although such flour had been largely used. That nitrites in some or greater amounts are frequently present in potable water, bacon, ham, fruits and certain vegetables, and even in the saliva of both adults and children, and no evil result has been detected. That urea usually present in saliva is, when taken into the stomach, a neutralizer of nitrites, and is a method by which nature averts harm from quantities of nitrites so constantly taken into the system. In this conflict of evidence it was essentially a matter for the jury to find the fact under proper instructions. Expert testimony is but evidence. In case of dispute the controversy cannot be settled by the judicial knowledge of the court. U. S. vs. McGlue, 1 Curtis, C. C. 1-9; U. S. vs. Molloy, 31 Fed. 191. It cannot be held that the evidence was so conclusive in favor of the Government as to warrant the court in withdrawing this issue from the jury.

The Government also claimed that the seized flour was adulterated within the first and fourth subdivisions of Section 7 before quoted in that a substance, viz.: Nitrites or nitrite reacting material had been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength and that it had been thereby colored in a manner whereby damage or inferiority is concealed. The claimant requested a peremptory instruction in its favor on the issues so tendered by the libel, and assigns the refusal to so instruct as error.

The mixture referred to in the first subdivision must be held to include a chemical compound as well as a mechanical mixture. While this does not accord with the scientific definition of a mixture, yet in common acceptation mixtures and compounds are not discriminated. The evil intended to be remedied by the statute is not limited to a mechanical mixture, but is just as potent when the chemical union results from the two substances with the deleterious effect intended to be prevented by the Act. Similarly, the word "colored" must be held to include any artificially produced change in the natural color of the substance "in a manner whereby damage or inferiority is concealed," even if the change is, as in this case, a removing of color. This is the evident intent of the statute. The Act is essentially remedial, and its evident purpose is not to be defeated by any narrowness of construction. Johnson vs. Southern Pacific Co., 196 U. S. I. There was evidence that bleached flour did not improve with age in the manner characteristic of unbleached flour, nor did it, as the claimant contended, suddenly take on the condition of properly aged flour which had not been subjected to the bleaching process. That in dough made from bleached flour the gluten never attained the toughness found in dough from unbleached and properly aged flour, and that this toughness was a valuable property in the making of bread. In other words, that as an ultimate result of the mixing of the flour with nitrogen peroxide gas the bread making quality had been injuriously affected. We are not concerned with the opposing testimony. It was for the jury to determine the fact and the court did not err in refusing to peremptorily instruct for the claimant so far as the claim of adulteration was based on the first subdivision before quoted.

The claim of adulteration under the fourth subdivision presents a different question. There is evidence that flour made from new wheat is darker in color than the flour made from wheat which has gone through an incipient fermentation or sweating process in the stack, and second, through a similar process after threshing. This involves time. Also, that freshly milled flour is darker than it subsequently becomes when kept for a certain period of time. That clear flour is darker than straight flour and straight flour is darker than patent flour. That color is to some extent an index of the quality of the flour, and as such influences the ordinary purchaser. That all grades of bleached flour are whiter than unbleached. In this way the index of color becomes unreliable and a purchaser may take the bleached straight for unbleached patent flour. With the evidence on which the inferiority of the bleached flour is claimed, this it is contended, brings the case within the fourth subdivision of Sec. 7. Opposed to this, it appears that color is at best an uncertain index of quality, and that dealers in flour use other means to ascertain quality. That the color of bleached flour is distinct from that of unbleached flour; the dead white of the bleached is contrasted with the cream white of the unbleached. That bleaching of flour does not obliterate the difference in appearance of different grades of bleached flour. That while patent flour obtains a higher price in the market than straight flour this is not due to any superiority in patent flour from a nutritious standpoint but is due to the fact that bread baked from it is whiter in appearance and, hence, more pleasing to the eye. This esthetic result can be obtained by a certain process of conditioning the wheat and milling the flour. Was it the intention of the statute that this process should have a monopoly? Whiteness in flour is a desirable end in and of itself. Its connection with flour of any particular grade is purely incidental. We are not persuaded that by the bleaching process flour is so colored as to conceal inferiority, or that by it, flour is adulterated within the intent of subdivision four of Sec. 7 of this Act.

The Court submitted to the jury the charge contained in the libel that this flour was misbranded, and in effect, instructed the jury that they should find for the Government if the flour was not a patent flour or was not made from first quality hard wheat. This was excepted to and is assigned as error. The contention of the plaintiff in error, as presented to the trial court by various requests for instructions, is that no evidence was introduced tending to prove that the seized flour was not a patent flour, and that the issue tendered by the libel as to the quality of the wheat only went to the question whether it was hard or soft wheat, and that there was no evidence that the wheat was soft. It will serve no useful purpose to review at length the evidence. It suffices to say that it appears that the seized flour contains ninety per cent of the flour content of the wheat; that there is no fixed standard as to the percentage of the flour content which may be properly termed patent flour. When the process first originated a relatively low percentage was called patent flour; as improvements were made in the methods of manufacture a higher percentage was customarily so labeled. Different mills adopt different standards, varying in accordance with the efficiency of their methods of manufacture. The quality of the wheat milled also enters into the question. The better the wheat the higher the percentage of the flour content that may properly be classed as patent flour. The case of the Government rests entirely on the evidence of some millers that in their opinion no greater percentage than eighty-five per cent can be properly classed as patent flour. This evidence is based upon the experience of those witnesses with different machinery and wheat, and is not predicated upon the claimant's methods of manufacture. There is a concurrence of

the witnesses that the term "patent flour" does not connote any fixed or maximum percentage of the flour content of the berry. In other words, by patent flour is meant flour containing less than the total of the flour content of the wheat. Giving those words that signification there was no evidence of falsity, and the claimant was entitled to have that issue withdrawn from the jury by a peremptory instruction in its favor.

It was charged in the amended libel that the seized flour was misbranded in that it was labeled as made of the first quality of hard wheat, whereas, in truth it was made in whole or in part of soft wheat. This charge was denied in the answer. The evidence adduced in its support is that the flour was milled from No. 2 Turkey red wheat and was not of the first quality, but that no soft wheat entered into its composition. The trial court, in substance, instructed the jury that if the wheat was not of the first quality the charge of misbranding was sustained. Fairly construed the libel tendered the issue of soft wheat as distinguished from hard wheat. The pleader assumed that it was incumbent upon him to specify the particular in which the branding was false. If it be permissible to so specify and failing to support the specification, to prove falsity in another particular within the general averment of falsity, then the specification serves but to draw the attention of the defendant from the actual point of controversy and to mislead. It was error to submit the charge of misbranding to the jury.

Errors are assigned on various rulings in the admission of testimony, but as the pages of the record which presented the testimony objected to are not stated in the brief of the plaintiff in error, as required by rule 24 of this Court, we deem it unnecessary to consider them. Hoge vs. Magnes, 85 Fed. 355-8.

The constitutionality of the Food and Drugs Act is attacked by the plaintiff in error and was exhaustively argued. The point of the attack is that the statute as construed by the trial court applied to food products in fact entirely innocuous and which could not possibly be injurious to health nor deceptive. As we have not so interpreted the statute, it is not necessary to express an opinion as to the validity of a statute excluding from interstate commerce harmless food products which are offered for sale without deception.

The judgment below must be reversed and the case remanded for a new trial, and it is so ordered.

Filed Jan. 23, 1913.

A true copy.

Attest: John D. Jordan, Clerk.

PENNSYLVANIA FOOD BUREAU SHOWS PROFIT AND PROGRESS.

Dairy and Food Commissioner Foust of Pennsylvania states respecting the work of his bureau for the year 1912, that the agents purchased and the chemists analyzed 7,197 food samples; and that there were terminated 1,049 cases for violations of the food laws. The moneys received by the bureau from fines and license fees totaled $136,125.49, while for the maintenance of the bureau the expenditures were $81,858.55, or $54,266.94 less than the receipts. The Commissioner notes that all moneys received by the bureau are at once paid into the treasury for the use of the commonwealth, and that the bureau is maintained exclusively from specific legislative appropriations.

Concerning the general character of the work for 1912, the Commissioner remarks that over 4,000 milks were examined. In these, the chief adulterations found were the results of skimming and watering. A remarkable decrease in the use of milk preservatives appeared, there being only three instances in which formaldehyde had been found, two in Allegheny county, one in Venango county; whereas, nine years ago, the bureau caused upwards of 600 arrests for this offense. Other features of special interest were numerous cases of the sale of rotten eggs in Philadelphia and Pittsburgh, the frequent discovery of benzoate of soda in excess of the amount tolerated by the present act, the occurrence of saccharin in soft drinks and the frequent misbranding of these goods; the fact that added copper is still found occasionally in imported French peas; also that a good many cases had been found in which decayed raw materials had been used in food manufacture, or in which food products had become decomposed subsequent to manufacture.

The Commissioner expresses his confidence that the condition of the public food supply with respect to adulteration and misbranding, is constantly improving under the beneficent influence of the commonwealth's food laws.

HEARING ON PENNSYLVANIA SENATE BILL NO. 5.

Harrisburg, Pa., Feb. 11.—Delegations of attorneys and others representing wholesale grocers, confectioners and other lines of trade in food products filled the Senate chamber this afternoon at a hearing on the general food bill drafted by Dairy and Food Commissioner Foust and introduced by Senator Daniel P. Gerberich, of Lebanon. The hearing was held before the Senate Public Health and Sanitation Committee, of which Senator Enos M. Jones, of Altoona, is chairman. The purpose had been to hear arguments also on the soft drink bill, but this had to be postponed one week, owing to the time occupied on the food measure.

The confectioners were heard first, through four speakers, A. C. Keeley, William Chapman and William Rosskam, of Philadelphia, and George H. Calvert, of Pittsburgh. They urged the necessity of being permitted to use coal tar products for coloring purposes, asserting that these are harmless in the quantities used. They also asked for a guarantee clause, to make the manufacturer responsible for defects, rather than the retailer. Objection was made to the clause requiring packages to be stamped with the weight, as this would be impracticable in small candy packages.

Speakers for the wholesale grocers included H. C. Kurtz, of Reading, chairman of the legislative committee of the Pennsylvania Wholesale Grocers' Association; Fred R. Drake, of Eadton, who spoke on sulphur dioxide as applied to dried fruit; R. P. Duff, of Pittsburgh, who discussed the use of sulphur dioxide in molasses; Ralph Gould, chief chemist of the California Dried Fruit Association; Edward H. Jenkins, of Pittsburgh, on the weights and measures features of the bill; F. B. Reeves, of Philadelphia, whose subject was names on labels, and Albert Kaiser, president of the Philadelphia Retail Grocers' Association, who discussed the guarantee and extension clauses.

The grocers offered no objections to the prohibition of the use of benzoate of soda, but argued that sulphur dioxide should be permitted in limited quantiites until the California manufacturers could find some other means of preparing their product.

Franklin Spencer Edmunds, representing the Philadelphia Grocers & Importers' Exchange, criticised the bill because it would establish regulations in conflict with those of the federal government, and thus cause needless confusion. He questioned the wisdom of the clauses prohibiting the use of benzoate of soda, sulphur dioxide and alum, and said the committee ought not to approve the measure unless furnished with proof that these substances were injurious to health in the quantities used.

W. C. Morrison, secretary of the national organization of independent baking powder concerns that use an alum compound in their process, declared that the provision of the bill in this respect would drive their products out of Pennsylvania and add to the cost of living. He said every trace of alum in baking powder was destroyed in the processes of cooking bread.

Thomas C. Hare, of Altoona, attorney for the Corn Products Refining Company, offered an amendment permitting the use of corn syrups, and Attorney Lyman D. Gilbert, of Harrisburg, urged that the language of the bill be such as to insure that people obtain pure sugar syrups when they pay for such.

Attorney A. H. Woodward, of Clearfield, counsel for the dairy and food division, declared the welfare of the people of Pennsylvania was more important than the interests of any line of business. He said the guarantee clause had been eliminated because it had permitted outside manufacturers to flood the state with adulterated products to the injury of the Pennsylvania manufacturer.

Senator E. E. Beidleman, of Harrisburg, member of the committee, objected vigorously to eliminating the guarantee feature, because it would render the small retailers liable to criminal prosecution and the ruin of their business.

Prof. Charles F. LeWall, chemist, of Philadelphia, said many manufacturers who formerly thought they had to use benzoate of soda now found they could get along without it. The products in which it was used were always inferior.

Prof. William Frear spoke of the sugar clause, saying there was no objection to legalizing the use of corn syrups provided they were not sold to people who believed they were buying sugar syrups.

Dr. Alsberg Outlines Important Policies

Address of Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, United States Department of Agriculture, Before the National Association of Manufacturers of Medicinal Products, New York, February 12, 1913.

I AM particularly glad to make this, my first public statement of policy, before you gentlemen because I believe that the bureau of chemistry has no more important task than the problem of dealing with drugs and medicinal preparations.

The brevity of my tenure of office renders what I am about to present to you, I regret to say, merely an outline of principles by which the bureau of chemistry is to be guided. I would far prefer at this time to make no statement at all but to wait and let the work of the bureau speak for itself. As it is, I feel like a man who is "kiting" a check. I hope that the checks which in behalf of the bureau I am about to make out to the order of the people may be amply covered before they are presented for payment. I realize fully that this will be no easy task.

In addressing an audience such as this, I feel that much that I would say to other industries would be out of place here. To most branches of the food industry, for example I would say that the bureau hopes to co-operate with them in placing their processes upon a scientific basis, in eliminating waste, and in utilizing by-products to the best advantage. I would say that the bureau hopes to do for them what other bureaus of the department of agriculture are doing for the farmer. Great benefit to the consumer must result from such a course. To say such things to you would be almost an impertinence because, if I am correctly informed, you gentlemen are fully awake to the value of science and research in practical manufactures. Most of you employ a large staff of chemists and other experts, and practically all of you are constantly conducting investigations designed to perfect your output, to cut down the cost of production, to improve existing products or to create new ones for the benefit of mankind, as well as of yourselves. Many of you realize that the time has come for the co-operation of the medical investigator and the manufacturer of remedial agents. It may be that there are some who fear that such co-operation will commercialize the medical profession. I am not one of them. It has been amply shown that the solution of many therapeutic problems may be largely a matter of money. It often takes tremendous resources to carry such work to a successful issue. Few private investigators and few institutions command them. Here manufacturers may and do step in to help the investigator. As you all know, some of the greatest therapeutic advances of recent years, notably Paul Ehrlich's Calvarsan or 606 and the coal tar products would have been impossible except for such co-operation. The fact that the manufacturer offers his help as a speculation by which he hopes to gain does not alter the fact that the net result may be of immense benefit to mankind.

While, therefore, I wish to assure you that the bureau stands ready to co-operate with your association, because such co-operation is to the best interest of all, we feel that you have learned the lesson of the application of science to practical things so thoroughly that only in the exceptional instance do you need a helping hand.

There is, however, a different field which is crying for co-operation between you gentlemen and the interests allied with you and the government. This is the matter of the control and regulation of the handling and sale of drugs and their preparations, particularly patent medicines and the narcotics. I know that in appealing to you on this subject I am entering debatable land. But this the bureau has to do sooner or later, and I am of the opinion that it can not begin too soon.

The eyes of the people have, in the past, centered upon the department's struggle for pure foods. The work of the department has, I think you will all admit, been very successful in improving the quality of our foods and preventing the grave forms of fraud and adulteration. We realize fully that much remains to be done, but public confidence has been won; and precedents have been created. No backward step will be taken. There will be no letup in the enforcement of the Pure Food and Drugs Act. If at any time we seem to accomplish less than appears to you possible, I trust you will realize that under the law our powers are limited; that we have no control over local conditions, and that we can control such local conditions only indirectly through our influence on imports and on interstate commerce. Conditions throughout the Union will be right only when each and every state passes, and enforces, adequate food laws; and when these laws have been unified and harmonized with those of the federal government. I hope that the consumers in every state where such laws are inadequate or laxly enforced will bring such pressure to bear that these local conditions, over which the bureau has no control, will be remedied.

While the efforts of the department of agriculture in so far as the control of the food products over which it has jurisdiction is concerned, have been attended with considerable success, this has been true to a less degree with drugs and medicines. The fault has been in part with unforeseen loopholes in the law. I do not wish to imply that nothing has been accomplished. On the contrary, as you are well aware, through the great powers over imports vested in the secretary of the treasury, the department of agriculture has succeeded in keeping out of the country all crude drugs of an inferior quality.

The benefit to medicine and pharmacy has been immense. To accomplish this end is a very simple matter because the secretary of the treasury has absolute power to exclude from the country any drug which may be in violation of law or is deemed injurious to the health of the people of the United States. These treasury decisions are based upon reports by the secretary of agriculture, of findings made by the bureau of chemistry.

These powers of the secretary of the treasury have been exercised not only over crude drugs and medicinal preparations, but also over so-called patent medicines whenever these made claims upon the label of curative powers which were false or misleading in any particular. Such quack medicines defraud those suffering from the pernicious activity of their imagination. They do incalculable harm to the misguided sick who grasp at the false hopes they hold out. The secretary of the treasury, on the recommendation of the department of agriculture, is excluding all such undesirable aliens. If we must suffer from and be mulcted by the proprietors of nostrums we may now have at least the poor comfort of knowing that we suffer injury at the hands of our own people and that we keep in the land the money we pay to boot. No legislative tariff wall could more effectively protect the home industry. I regard it as the most important immediate duty of the bureau to curb a traffic between the states in worthless nostrums.

It is true that the foreign nostrum which is excluded today because of the extravagant claims on the package may be admitted tomorrow if the label has been purged of these objectionable features. Nevertheless the effect is most excellent for a quack medicine which makes no extravagant claim on the package must, in order to find a large sale, make such claims in its advertisements in the press. This most of the alien nostrums apparently find impractical to do, so that the action taken by the secretaries of agriculture and the treasury is very generally effective in protecting the people from alien frauds.

It is far different with the domestic nostrums. Because the domestic manufacturer knows how to advertise, no existing federal law can adequately protect the people. The Sherley Act will, we hope, enable us to compel the removal of all false and fraudulent matter from the package. It will, we hope, enable us to compel the removal from the package of all therapeutic claims that can not be substantiated. We are confident that in spite of reams of testimonials these claims will shrink into insignficance in the vast majority of cases. But even if we succeed in this we shall leave no stone unturned, the beneficial effect will be more apparent than real. The Sherley Act is at best only a partial protection. It gives the department of agriculture power to regulate the labels of these nostrums, but not their advertising. This has, to some degree, been controlled through the post office department. As long as our press continues to print the advertisements of nostrums, ways and means will be found to hawk them about the country. Several such ingenious schemes have already been put into practice.

Gloomy as the outlook seems, there is yet a ray of hope.

It is the attitude of a small but powerful portion of the press itself, which has voluntarily secured its advertising columns till they contain only clean and honest matter. The movement is spreading. Let us hope that its progress will be so rapid that it will make legislative control of advertising unnecessary.

That public sentiment and a sense of justice and public service induce individuals to sacrifice their own self-interest, is one of the hopeful signs of the times. It gives one a thrill to realize that this spirit is not peculiar to the press which one expects to fashion the country's ideals but that it is to be found everywhere. It has been exemplified in a most striking way by one of the largest concerns of the country, which has announced that it will no longer deal in patent medicines. It has substituted non-secret preparations of recognized merit. Let us hope that others will follow the trail thus blazed. I am proud to say that the chemist of this concern, who, I am told, was probably involved in this pioneer reform, was formerly a scientist in the bureau of chemistry.

Even if we succeeded in protecting the people from quack medicines, a great task remains. This is to protect them from habit-forming drugs, such as opium and cocaine. We all know their sad effects. We all are agreed that something must be done to control their sale and distribution. The only differences of opinion concern the best means of accomplishing this end. Since it is often stated, without serious contradiction, that only one-third of the cocaine which is imported is used for legitimate therapeutic purposes, all must agree that the situation demands drastic measures. Without the help of the federal government, no reforms can be introduced because the states by themselves can not control the supply. As long as state officials have no means of ascertaining how much opium and cocaine is being shipped into a state and to whom it is consigned, it is evident that they are powerless to limit these and similar drugs to their legitimate uses. If these drugs were produced in this country, it would be exceedingly difficult to keep track of and to trace the supply. The situation would be analogous to that of moonshine whisky. It would require an expensive police force to control the supply of these drugs and it is doubtful whether this control could ever be made efficient. Fortunately the situation is not so difficult. Virtually all our supply of these drugs is imported. It is, therefore, feasible if the state and federal governments co-operate to keep an accurate record of the fate of all of each consignment imported through the wholesaler and jobber down to the pharmacist, physician, dentist and veterinarian. If the federal government does its share, state officials by an examination of federal records will be able to learn what quantities of narcotics are coming into the state and to whom they are consigned. Each state will then be in a position to control these scourges of our peoples. If it fail to do so it must shoulder the responsibility.

The federal government can bring this about by virtue either of its taxing power or by virtue of its control over interstate and foreign commerce. The Harrison Bill now pending before congress is based on the taxing power, proposing as it does that each handler of these drugs must be licensed by the commissioner of internal revenue. To me it seems a step in the right direction. Should it fail to pass or should it prove ineffective it is certain to result in far more drastic measures. This evil must be stamped out. I propose to use every lawful means at the command of the bureau of chemistry to accomplish this end.

Gentlemen, that is in essence what I have to say tonight. I know that I have told you nothing new. If I am in error in any particular, I stand ready to be set right. My excuse for telling you an old story is that I could not otherwise make clear to you my attitude on certain matters which are vital to us all. I wish to have a clear understanding with you. I hope that now we understand each other and that, therefore, we can grasp hands across the table and pledge each other to work together for the common good.

NO MORE FRUITS FROM MEXICO.

By a ruling of the United States Department of Agriculture under the quarantine act, issued January 22, the importation into the United States from Mexico of oranges, sweet limes, mangoes, achras sapotes, peaches, guavas and plums is strictly prohibited. The fruit business from Mexico has never been of large volume so the commercial importance of the quarantine is not great. The ruling was made in order to prevent any possibility of the introduction into the United States of the insect known as the Mexican fruit fly.

SOLICITOR'S REPORT TELLS STANDING OF CASES.

The report of the solicitor of the United States Department of Agriculture, for the fiscal year ending June 30, 1912, recently issued, contains a resume of what has been done in the way of administration of the Pure Food and Drugs Act, and gives the standing of the various cases in which the department is interested at that date. The report states that investigation by the department into the milk supply of St. Louis, Mo., the source of which was neighboring towns in the state of Illinois, showed that large quantities of milk contaminated by filth and otherwise adulterated under the act were being shipped interstate. As a result of that investigation 238 cases involving adulteration of milk were prepared against various shippers in the state of Illinois and reported to the attorney general for prosecution. Some of these cases have recently come to trial and resulted in verdicts for the government.

A like investigation into the milk supply of Providence, R. I., resulted in the report of 70 cases to the attorney general by the solicitor for prosecution in the district of Connecticut, where the shipments originated. In a number of the cases the defendants pleaded guilty while in the remainder proceedings were instituted and were pending in the courts at the close of the fiscal year covered by the report.

The case of the United States vs. Morgan, involving shipment by the defendants of misbranded spring water from New York to Newark, N. J., is gone into quite fully. This case was decided by the Supreme Court of the United States and was treated at length in the February, 1912, number of The American Food Journal. In fact, most of the important cases which were decided previous to June 30, 1912, and covered in the solicitor's report were given in the various issues of this magazine at the time the decisions were handed down.

Among the cases that were pending at the close of the fiscal year was that of the United States vs. the Dr. J. L. Stephens Co., involving a shipment of medicine containing alcohol and opium not declared on the label. This case was tried in the United States district court for the southern district of Ohio and was decided in favor of the government. The defendant then sued out a writ of error in the circuit court of appeals for the sixth circuit, which will review the judgment of the trial court.

In seizure proceedings instituted by the department involving confectionery, in the district court of Massachusetts, claimants obtained a verdict from the jury on the question of adulteration of the products. The government contended that the products in question were adulterated by reason of containing talc, an ingredient deleterious and detrimental to health, and has perfected an appeal in the above cases, the same being now pending in the circuit court of appeals for the first circuit.

The cases of the United States vs. The Clifton Forge Ice and Bottling Works, involving interstate shipments of ice cream alleged to be adulterated in that it was filthy and decomposed, which were tried during the fiscal year 1911 in the United States district court for the western district of Virginia, and which resulted in a disagreement of the jury are now pending in said court awaiting trial, which was requested by the department. Steps have been taken to secure new evidence for presentation at the retrial set for the term of court in February, 1913.

Space does not permit our giving a complete list of the cases covered in the report, and also many of them are of minor importance. A copy of the solicitor's report may be obtained by those interested by writing to the Department of Agriculture.

DENATURED ALCOHOL FROM FROSTED FRUIT.

The extensive damage done to the oranges in southern California by the recent unprecedented cold weather has left growers in a quandary as to how to redeem a portion of their loss if possible. Much of the fruit cannot be shipped for eastern markets but it is thought it might be used in the manufacture of some by-product. It has been decided to experiment with oranges and lemons in the manufacture of denatured alcohol, thousands of tons of fruit being available for some such purpose.

J. G. WINKJER REAPPOINTED.

Mr. J. G. Winkjer, Minnesota State Dairy and Food Commissioner, has been re-appointed to the office for the coming two years.

Provisions of the National and State Food Laws with Regard to Weight Labeling

The United States is a Single Commercial Unit. A Single Uniform Rule for Labeling Food Packages, Operating Equally in All States, is a National Necessity.

Regulation permits reasonable variation in packages in States marked (★)

Type not smaller than 8-POINT CAPS required in States marked (★)

FEDERAL LAW.—"That for the purposes of this Act an article shall also be deemed to be misbranded:" "If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Act of Congress June* 30, 1906—34 *Statutes at Large,* 768.

FEDERAL REGULATION—"* * * If any such statement is printed it shall be a plain and correct statement of the average net weight or volume either immediately above or below the principal label. * * *"

"A resonable variation from the stated weight for individual packages is permissible provided this variation is as often above as below the weight or volume stated. * * *"

★ ALABAMA—"If in package form and the contents are stated in terms of weight or measure, they are not plainly or correctly stated on the outside of the package." *Laws of* 1909, *p.* 237. ★

ARIZONA—"Food or liquor shall be deemed mislabeled or misbranded within the meaning of this Act in any of the following cases: (3) If when in package and the contents are stated in terms of weight and measure, such weight and measure are not plainly and correctly stated on the outside of the package." *Section* 6, *sub-division* 3, *of Senate Bill* 61, *Laws of Special Session of* 1912.

★ ARKANSAS—"If any in package form, and the contents are stated in terms of weight and measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *p.* 1155. ★

★ CALIFORNIA—"If in package form and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chap.* 181. ★

★ COLORADO—"If in package form and the contents are stated in the terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chap.* 1. ★

★ CONNECTICUT—"Any person who shall sell or offer for sale, food in package form, unless the net quantity of the contents be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided that reasonable variations shall be permitted, and that allowances shall be established by rules and regulations made from time to time by the Dairy and Food Commissioner and the Director of the Connecticut Agricultural Experiment Station, shall be subject to the penalties provided in Chapter 255 of the Public Acts of 1907." *Chapter* 134, *Laws of* 1911. ★

★ DELAWARE—Section 4 of Food Law provides that it shall not apply to articles which conform to the Federal Law. *Laws of* 1907, *Chap.* 160. ★

★ DISTRICT OF COLUMBIA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." 34 *Statutes at Large,* 768. ★

★ FLORIDA—"If in package form the net contents of the package are not correctly stated in terms of weight or measure conspicuously, legibly and correctly, on the outside of the package." *Approved June* 5, 1911. ★

★ GEORGIA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1906, *p.* 83. ★

★ IDAHO—"If in package form, and the contents are stated in terms of weight, or measure, the net weight or measure is not plainly or correctly stated on the outside of the package." *Chapter* 196, *Law* 1911. ★

ILLINOIS—"If in any package form, and the contents are stated in the terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *p.* 543. ★

INDIANA—"If in the package form and the contents are stated in the terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chap.* 104. ★

IOWA—"The term 'Misbranded,' as used herein, shall apply to all articles of food, * * * and to any food product which is falsely branded as to the State, territory or country in which it is manufactured or produced or if in package form, which bears any statement of the weight or measure unless the same be a correct statement of the net weight or measure of the contents." *Chapter* 174, *Laws of* 1911. *Approved April* 13, 1911. ★

★ KANSAS—"If in package form, and the contents are stated in terms of weight, measure or quantity, the net weight, measure or quantity is not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chap.* 266. ★

KENTUCKY—"If it be misrepresented as to weight or measure, * * *." *Laws of* 1908, *Chap.* 4.

★ LOUISIANA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Regulations under Laws of* 1906, *Act* 98. ★

Regulation permits reasonable variation in packages in States marked (★)

Type not smaller than 8-POINT CAPS required in States marked (★)

★ MAINE—"The term 'Misbranded' as used herein shall apply to all articles of * * * drug, food, * * * the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, or which is falsely branded in any particular." *Chapter* 119, *Laws of* 1911. *Approved March* 28, 1911. The above law contains no section directly relating to the branding of the net weight or measure of the contents upon the labels or food packages; but repeals Chapter 124 of the Public Laws of 1907, and all other acts and parts of acts inconsistent with it.

MARYLAND—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1910, *Chap.* 156.

MASSACHUSETTS—No weight clause.

MICHIGAN—No weight clause.

★ MINNESOTA—No weight clause. (Regulation states that "not required but if * * * printed * * * plain and correct * * * net weight * * *.") ★

★ MISSISSIPPI—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1910, *Chap.* 132. ★

★ MISSOURI—"If in package form, and the contents are stated in terms of weight and measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *p.* 238. ★

★ MONTANA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Chap.* 130, *Laws of* 1911. *Approved March* 8, 1911. *In effect January* 1, 1912. ★

★ NEBRASKA—"If sold for use in Nebraska and in package form, other than canned corn; if every such package, as branded and named below, does not have a correct statement clearly printed, on the outside of the main label, of the contents and also of the net weight or measure of the contents exclusive of the container, viz.: all dairy products, lard, cottolene, or any other article used for a substitute for lard, wheat products, oat products and corn products and mixtures, prepared or unprepared, sugar, syrup and molasses, tea, coffee and dried fruit." *Chapter* 260, *Laws of* 1911. *Approved April* 10, 1911.

★ NEVADA—"It shall be unlawful for any person to put up any commodity or article of merchandise into a package or container and sell or offer for sale in this State such commodity or article of merchandise in that form without having such package or container labeled in plain, intelligible English words and figures with a correct statement of the net weight, measure or numerical count of its contents; PROVIDED, that nothing in this section shall prevent the putting up of commodities or articles of merchandise, which have been previously sold by net weight, measure or numerical count, into packages or containers for the purpose of delivering or transporting such commodities or articles of merchandise." *Chapter* 43, *Laws of* 1911. *Approved March* 8, 1911.

★ NEW HAMPSHIRE—"If in package form, and the contents are stated in terms of weight or measure, they are not correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 48. ★

NEW JERSEY—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 217.

NEW MEXICO—No weight clause.

★ NEW YORK—"When commodities are sold or offered for sale in containers of other sizes than those specified in Section 16-A, or whose sizes are not otherwise provided by statute, the net quantity of the contents of each container or a statement that the specified weight includes the container, the weight of which shall be marked, shall be plainly and conspicuously marked, branded or otherwise indicated on the outside or top thereof on a label or tag attached thereto, in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted." *Laws of* 1912, *Chapter* 81, *Section* 17.

NORTH CAROLINA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 368.

★ NORTH DAKOTA—"Every article of food or beverage as defined in the statutes of this State shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, and shall be labeled in accordance with the provisions of the food and beverage laws of this State. Only those products shall be sold by numerical count which cannot well be sold by weight or measure. All weights shall be net, excluding the wrapper or container, and shall be stated in terms of pounds, ounces and grains avoirdupois weight, and all measure shall be in terms of gallons of two hundred and thirty-one (231) cubic inches or fractions thereof, as quarts, pints and ounces. Reasonable variations shall be permitted and tolerations therefor shall be established and promulgated by the food commissioner." *Chapter* 236, *Laws of* 1911. *Approved March* 3, 1911.

OHIO—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1908, *p.* 257.

★ OKLAHOMA—"If in package form, and the contents stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1909, *Chapter* 18. ★

★ OREGON—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package or container in English words." *Laws of* 1907, *Chapter* 167. ★

PENNSYLVANIA—No weight clause.

Regulation permits reasonable variation in packages in States marked (★)

Type not smaller than 8-POINT CAPS required in States marked (★)

RHODE ISLAND—"If it is in the package form, and the contents are stated in the terms of weight or measure, the same is not plainly and correctly stated on the outside of the package." *Laws of* 1908, *Chapter* 1597.

SOUTH CAROLINA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 248.

★ SOUTH DAKOTA—"Every package—form, bottle or container, if the same does not bear the true net weight, the true net measure or true numerical count, the name of the real manufacturer or jobbers, and the true grade or class of the product, all of which is to be expressed on the face of the principal label in clear distinct English words, so that the same can be plainly read, provided that package, bottle or container on hand at the time of taking effect of this Act do not come within the provisions of this paragraph." *Chapter* 13, *Laws of* 1911. *Approved March* 7, 1911.

TENNESSEE—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 297. General Food Law. *Chapter* 53, *Laws of* 1911. Does not change net weight clause.

★ TEXAS—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 39. *Re-enacted Chap.* 47, *Laws of* 1911. ★

UTAH—"If in package form, and the contents are stated in terms of weight or measure, they are not correctly stated on the outside of the package." *Laws of* 1907, *Chap.* 153. *Title* 18. *Compiled Laws* 1907, *Sec.* 737—*Third.*

★ VERMONT—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1906, *No.* 176. *Section* 5472, *Chapter* 226, *Public Statutes as amended by Nos.* 159, 160 *and* 161 *of Acts of* 1908. ★

★ VIRGINIA—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1908, *Chapter* 372.

★ WASHINGTON—"If the net weight or net measure of such package, bottle or container be given, and it shall not be the true net weight or net measure." *Laws of* 1907, *Chapter* 211. ★

WEST VIRGINIA—No weight clause.

WISCONSIN—"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package." *Laws of* 1907, *Chapter* 173.

★ WYOMING—"If in package form, the net quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted and that tolerances shall be established by rules and regulations made in accordance with the provisions of this Act." *Laws of* 1911, *Chapter* 104.

TOTAL 30

TOTAL 25



THE CHEMISTS' CLUB BANQUET, HELD IN DINING HALL OF CHEMISTS' CLUB, NEW YORK, FEBRUARY 8, 1913.

NEW YORK MILK COMMITTEE CONFERENCE.

A conference arranged by the New York Milk Committee was held in New York February 5 and 6, and was attended by delegates appointed by the governors of eight states, federal officers, health officials and other prominent people. That the work of the conference was of far-reaching importance to dairy interests throughout the eastern and middle states is made evident by the fact that the committee has already received assurance from five of these states that the suggestions of the conference will be made the basis of legislation in the immediate future. These states are New York, Massachusetts, Pennsylvania, New Jersey and Maryland. As the conferees voted to recommend such action in all the states represented, it is expected that Vermont, New Hampshire and Rhode Island will soon follow suit.

The leading recommendation is that the control of dairy inspection in each state be centralized in the State Department of Agriculture or the department having jurisdiction over live stock. Such provision, the delegates contended, would be of great benefit to cattle and dairymen. In many sections at present, the milk producers are harassed continually by double and triple inspection, or worse, from two or more different cities with widely different standards and methods. With uniform state legislation throughout the eastern and middle section of the country, producers supplying New York, Philadelphia, Boston and the other cities, would be relieved of this annoyance.

The registration and grading of herds, buildings, equipment and methods by the state authorities is also advised. Cattle owners will be particularly interested in the clauses restricting the slaughter of tuberculous cattle, the compensation of original owners of those destroyed, as well as the provision for branding tuberculous cattle, controlling the transfer of those not destroyed and making their product safe for use.

It is contended by the delegates that these recommendations enacted into laws would in the end be of decided benefit to milk producer as well as to the consumers. The standard of our herds, they point out, would inevitably be raised and much of the annoyances and difficulties due to the present lack of uniform standards among the states removed.

The resolutions in full as adopted are as follows:

Resolved, That the inspection of dairy farms should be under the supervision of the state authorities.

Resolved, That the state control of the dairy inspection should be centralized in the Department of Agriculture or the department having jurisduction over live stock.

Resolved, That it be the function of the State Department of Agriculture, or department having jurisdiction over live stock to perform the following work: Veterinary inspection of dairy cattle, including physical examination and tuberculin tests, sanitary inspection of dairy barns and their surroundings, water supply, drainage system, etc.

Resolved, That the following work be performed by the State Department of Health: Medical inspection of dairy employes and milk handlers at creamery and shipping stations; sanitary inspection of human dwellings, water supply, drainage systems, milk houses, shipping stations, factories, etc., and laboratory tests of milk.

Resolved, That the state milk control extend over the manufacture and handling of milk products.

Resolved, That all dairy herds be registered, classified and graded by the State Department of Agriculture, as follows:

Class A—Herds tuberculin tested and physically examined.

Class B—Herds not tuberculin tested but physically examined.

Class C—Herds not tuberculin tested and not physically examined.

Resolved, That all dairy buildings, equipment and methods be registered, classified and graded by the State Department of Agriculture, as follows:

BUILDINGS AND EQUIPMENT.

Class A—80 per cent and above equal to 32 points and above on U. S. score card.

Class B—60 per cent to 79 per cent equal to 24 to 31 points on U. S. score card.

Class C—Below 60 per cent equal to below 24 points on U. S. score card.

METHODS.

Class A—80 per cent or above equal to 48 points on U. S. score card.

Class B—60 per cent to 79 per cent equal to 36 to 47 points on U. S. score card.

Class C—Below 60 per cent equal to below 36 points on U. S. score card.

Resolved, That milk as delivered on the market be classified and graded.

Resolved, That the control of local milk supply by municipal and town boards of health should include the following duties: Issuance and revocation of licenses of local distributors; classification and labeling of milk; inspection by local inspectors of all places where milk is received, handled and sold; laboratory tests to determine the efficiency of pasteurizing machines and methods; maintain records of inspection and all laboratory tests; utilization of results of inspection and laboratory tests in conjunction with reports from the state authorities of dairy inspections in exercising control over milk distributors; educate the consumer in the value, use and care of milk.

Resolved, That it is unnecessary and inadvisable to demand the destruction of cattle reacting to tuberculin unless they show signs of generalized tuberculosis.

Resolved, That the dairy products from such cattle as react but do not show signs of tuberculosis on physical examination should be subjected to such measures as will render their products safe for the food of man or animal.

Resolved, That the payment for cattle slaughtered after reacting to the tuberculin test should be made only to the original owners.

Resolved, That all animals destroyed by the state should be paid for.

Resolved, That quarantine should be approved of as a means of protecting states against interstate traffic in diseased cattle.

Resolved, That it should be made illegal for any person to move cattle or sell them without permission of the state authorities if they have been warned by such authorities that they are diseased.

Resolved, That the cattle commissioners or those having charge of diseases of animals should have authority under the law to brand animals that have reacted to the tuberculin test or been condemned on physical examination.

Resolved, That all tuberculin tests be reported to the state authorities and these placed on file by the state authorities.

Resolved, That the physical examination of all animals by qualified veterinarians be made compulsory.

Resolved, That careful attention should be given by states in regard to disinfection of premises that have been inhabited by diseased cattle.

Resolved, That the several states empower those having supervision of the milk supply to co-operate with each other in reference to the control of interstate shipment of milk.

Resolved, That each state be urged to deal with the problems discussed as nearly in conformity with the resolutions endorsed as the local conditions permit.

NEBRASKA'S NEW FOOD COMMISSIONER.

Governor Morehead of Nebraska has appointed Mr. Clarence E. Harman of Holdrege, Nebraska, as state food commissioner for the ensuing term. Mr. Harman, who assumed the duties of the office January 29, displaces Mr. Nels P. Hansen, who had administered the office since February, 1912.

The new commissioner is a native of Nebraska, having been born at Bloomington, that state, in 1876. His home for the past twelve years has been at Holdrege. Previous to his appointment to this office Mr. Harman was a traveling salesman. In 1911 he was a Democratic candidate for state railway commissioner to fill an unexpired term of three years, and was again nominated at the primaries in 1912 for the same office for a six-year term, but was in both instances defeated at the elections.

Mr. Harman informs us that a consolidation of the oil department with that of the food, drug and dairy department is in progress, and as soon as an act of the legislature gives the necessary authority the consolidation will be completed. Meanwhile Mr. Harman is acting both as food commissioner and state oil inspector, having two commissions from the governor.

NEW TEA BOARD APPOINTED.

Secretary of the Treasury MacVeagh on January 24 announced the personnel of the new tea board to establish standards to govern tea importations for the ensuing year. The membership of the new board is as follows: R. C. Morrison, Chicago, Ill.; Charles B. Platt, San Francisco; H. G. Woodworth, Boston; B. R. Rogers, Tacoma, Wash.; G. E. Wyman, St. Paul, Minn.; Herbert Perry, New York; George F. Mitchell, Treasury Department.



MR. WILLARD E. BIGELOW,
For many years connected with the United States Department of Agriculture and recently appointed a member of the Board of Food and Drug Inspection.

DATE FOR LEXINGTON MEETING CHANGED.

In the January number of THE AMERICAN FOOD JOURNAL notice was given to the effect that R. M. Allen, head of the Food and Drug Division of the State University of Kentucky, was planning an informal meeting of food officials and chemists of Kentucky and neighboring states, at Lexington, Ky. Originally it was intended to hold the meeting the middle of February, but Mr. Allen informs us that the date has been postponed and it is now expected to have the meeting on March 11 and 12. The change of date is made in order to accommodate some officials who desired to attend and could not do so on the earlier date. The meeting will be held in the new building just completed in which the state food and drug division will be housed, and the conference will be made the occasion of starting the Kentucky pure food work in its new quarters.

WILL HOLD VINEGAR HEARING.

The Board of Food and Drug Inspection, through its chairman, Dr. Carl L. Alsberg, announces that at the request of certain manufacturers of vinegar, the board will give a publice hearing on February 20, 1913, at the Bureau of Chemistry, 216 13th Street, S. W., Washington, D. C., at 10 o'clock, a. m., on the proper labeling of the product covered by the following paragraph in Food Inspection Decision No. 140:

"Vinegar From Dried Apple Products: The product made from dried apple skins, cores, and chops, by the process of soaking, with subsequent alcoholic and acetous fermentations of the solution thus obtained, is not entitled to be called vinegar without further designation, but must be plainly marked to show the material from which it is produced. The dried stock from which this product is prepared must be clean and made from sound material."

In addition to the evidence presented at this hearing by interested persons, the board will receive and consider any briefs or letters on the subject which are filed prior to the date of the hearing.

GROCERY AND ALLIED TRADE PRESS MEETING.

The McAlpin Hotel, New York City, was the scene of the fourth annual convention of the Grocery and Allied Trade Press of America, January 27, 28 and 29. Representatives of nearly all the trade papers in the United States were in attendance and every question pertaining to the trade was discussed by men who are peers in their line and the members present had a feast of thought that should be of lasting benefit to them.

The conspicuous thought in every address was honesty of purpose and a fund of information and suggestion was brought out bearing upon the various phases of business confronting the trade press of the country.

The banquet on Wednesday evening, January 29, was attended by a very large number of men connected with the newspaper fraternity, and those who spoke were of the highest type of American thinkers. The speaking program began with a talk by Fred Mason, the other speakers being: John Clyde Oswald, whose subject was "Fine Feathers"; Alfred W. McCann, who spoke on "The Trade Paper in the Open"; Richard H. Waldo talked about "Getting the Money"; Elton J. Buckley took for his subject "Laying Down the Law," and Captain Jack Crawford, the Frontier Poet, recited an original poem composed for the occasion, entitled "The Poetry of Business."

Mr. Wm. H. Ukers is one of the biggest men in the trade paper profession, and the members of the Grocery and Allied Trade Press of America can well congratulate themselves in the fact that he has again accepted the position of president of their association. Mr. Ukers is a big man in every sense of the word, adds dignity to the association, and gives it a standing which few men in the profession could give it. That this is appreciated by the members of the Trade Press was shown by the presentation of a very fine gold watch to President Ukers during the banquet. Mr. C. M. Wessels also came in for a share of the good things and he too was presented with a watch-fob, and last but not least, Mr. Chas. Thorpe, who has acted as treasurer and is again selected, was also presented by the members with a watch-fob. Mr. Thorpe is a man who is held in the highest esteem by his associates.

Thus ended one of the best sessions that the Grocery and Allied Trade Press of America has ever had. There is no question but that the information obtained at this convention will be far-reaching and we shall have a better, bigger and more intelligent presentation of the problems with which the retailer has to contend as a result of this convention.

PLEASE PASS THE HASH.

Some people find fault when eating hash because they don't know what is in it. Such souls are simply trying to dodge happiness. Would anybody ever start upon a journey if they knew the cars were going to leave the track or that the bridge was sure to collapse? No indeed. Would lovers of hash ever order that most toothsome viand were it not for the delightful uncertainty attached to it—the compelling mystery in which it is wrapped?

Why be wise when perfect happiness lies in ignorance? Hash has stood the test of time, and, whatever it is made of, history has yet to place a calamity at its door. Wine has caused the head to rise above the church steeples; pie has ruined the digestive apparatus, and hot biscuits have brought the price of nightmares down to a surprisingly low figure; but hash, plain, regular inoffensive hash, has gone on down the ages and left nothing in its wake but a food memory and a sweet taste in the mouth. Why worry?—*Boston Herald.*

COMMISSIONER WALLIS REAPPOINTED.

James H. Wallis, who has held the office of Idaho State Pure Food Commissioner and Sanitary Inspector for the past six years, has been re-appointed to the position for the ensuing term of two years. The office of food commissioner is not handled on a political basis in Idaho for Mr. Wallis has served under both Republican and Democratic state administrations. He has earned a splendid reputation for efficiency and Idaho is to be congratulated on having a man of the type of Mr. Wallis at the head of its pure food department.

The Washington Point of View.

By Our Staff Correspondent.

WASHINGTON, D. C., Feb. 13, 1913.—But for the fact that there is to be a change in the party management of the government, bringing with it the uncertainty as to what readjustments will be made in appointive officials in the various departments, the food and drug trades of the country might proceed with their business with fair assurances that they could carry out their plans. Dr. Carl L. Alsberg, the new head of the bureau of chemistry, has already given evidence that he is a man with a level head and one disposed to give all factors justice and fair play, and under such a regime neither manufacturers' nor consumers' interests are in jeopardy. It is to be hoped that President-elect Wilson will not deem it necessary to disrupt the present organization of the bureau.

Dr. Alsberg has reorganized the bureau and, as it now stands, Drs. Bigelow and Mitchell, the chemists, with himself, constitute the Board of Food and Drug Inspection. This board, the chief designs, will have for its principal duties the examination of samples and make reports on them, these reports to be given to the lawyers, whose duty it is to prepare the cases for prosecution. The chief has taken upon himself the duty of supervising the chemical work, as in the event of prosecutions it will be necessary for someone from the bureau to qualify as an expert witness, and Dr. Alsberg proposes that the prosecuting officers will have better support in this respect than has ever before been the case. He is determined that he will never find it necessary to tell a lawyer for the government that he cannot go onto the witness stand in support of whatever he may have said to them previously in private, because he cannot qualify as an expert in the ordinary work of his bureau.

Dr. Alsberg has decided to reserve for his own decision all questions of policy, while Dr. Bigelow has been assigned charge of the personnel of the working force. That is, Dr. Bigelow is expected to see that the men of the bureau report for work on time, pay their debts, and at least go through the motions of performing the tasks set before them. It is also designed to reduce the amount of "paper work," in other words, letter and memorandum writing, to a minimum.

It is hoped that President Wilson will recognize the present excellent status of matters in the bureau of chemistry, and make no changes which will cause a revolution, or make possible the friction and dissatisfaction existing previously in this bureau. The bureau of chemistry is now on a sound basis of respect for law, and there would seem to be no danger of arbitrary stands being taken, which would presuppose all opponents of such a stand to be lacking in a normal respect for the interests of the public. The Woodrow Wilson of his books would seem to be a man in whom confidence can be placed, and it is hoped that his advisers will not lead him into making appointments in the department of agriculture that will bring a taint to his administration.

It is inevitable that any man in Wilson's position should be the recipient of bad advice, and stand in danger of committing acts on unsound recommendations which he would afterwards regret. The present temper of the public is such that it would be disposed to resent very actively unwise selection in reference to the bureau in which rests the administration of the pure food law. There is no room for fakirs of any kind in that bureau of all others.

Ever since Solicitor McCabe announced his intention of resigning from his office on the last day of the Taft administration, a certain element has circulated the contemptible insinuation that he is retiring from office a rich man, the inference being that he got his money for his attitude in certain cases of opposition to his chief. The baseness of the insinuation is apparent to anyone who knows the man, and the fact is that when Mr. McCabe hangs out his shingle as a lawyer in Portland, Oregon, he will not have a $65,000 or any other valued farm to retire to. If he does not get business in six months after he performs the shingle-hanging act, he will probably have to figure on how he might borrow a dollar or two. The interest for which he fought, that of a square deal for everyone touched by the food and drugs act, does not bring profit to any man other than a feeling of decency and a knowledge that neither a sheriff nor a United States marshal could inspire fear or distrust around the McCabe house.

Partisan of Secretary Wilson, Mr. McCabe has always been. He never fought under any banner other than that of the venerable secretary, who has been the recipient of more flowers of oratory from men in congress, Democrats and Republicans, now that he is closing his long and exceptionally valuable public service career, than any man who has held public office in generations, if ever. The only thing that can truthfully be said against him is that he gave trust and confidence to some of his subordinates notwithstanding acts of insubordination which would not have been tolerated in private business.

If Dr. Alsberg is allowed to remain and put into effect the ideas he has about the administration of the law, the effective work of the department will be continued. Of course, there won't be a whole lot about the bureau in the newspapers, but all real work is prosaic and never valuable as newspaper "copy" until a big job has been completed.

The new chemist's idea is that the field which needs most attention is that of medicines and drugs. As a practical man he knows it does not affect public health whether whisky is made in the pot still or in the neutral spirit way, just so that every man who thinks he needs whisky can know what he is buying; but he has a notion that it makes a whole lot of difference to a sick man whether he gets the drug his doctor prescribes at full strength. He also conceives it to be in the interest of public health that the liar who puts out so-called cancer cures shall be put behind the bars unless he offers a medicine that dozens or hundreds of real experiments have shown to be either a specific or a palliative for the disease.

In his address on February 12 to the manufacturing chemists, Dr. Alsberg pointed out the big field for co-operation between the honest manufacturers and the government for the elimination of the dishonest ones and the strict regulation of preparations containing habit-forming drugs. With regard to the latter, he recognized that he was stepping upon debatable ground—which is a good thing, showing that he fully appreciates that there may be honest differences of opinion as to the harmfulness of different drugs. In this and many other ways, Dr. Alsberg has given evidence of being a man of just judgment, worthy the confidence of all interests.

Letter From Indiana

From a Staff Correspondent.

Indianapolis, Feb. 13.—With practically every other state of the central west and Ohio valley eastern states, Indiana this month has faced the problem of dealing with frosted fruit that came through the state en route from the frost-blighted California ranches, seeking a place to stop. It did not stop in Indiana, for several reasons.

In the first place the Federal government seemed to be watching closely the fruit that was started toward the Hoosier state and its hand streached out in several instances and prevented attempted interstate traffic in oranges and other citrus fruits that had felt the "bite" of the unwonted cold on the Pacific coast so much that the broken-down cell structures of the fruit would have resulted—and had already in some instances—in deterioration and the throwing upon the market of a large stock of practically uneatable food.

That the fruit growers in California and neighboring states will lose heavily on the season's output because of this seemingly immaterial injury to the oranges has been made clear by bulletins that have found their way as far east as Indiana. The federal authorities here, aided by the state department of pure food and drugs, did not stop to consider the loss to the California fruit growers however, they sought to protect the Indiana market, and they seem to have succeeded.

A suggestion that might lighten the burden of many of the fruit growers and jobbers, who have bought large quantities of the damaged oranges, was put out here, contemplating

the use of the entire crop that was injured in orange juices and kindred products.

Many carloads were consigned to points eastward and came through Indiana seeking a dropping off place. Agents all along the line were told to stop the cars and sell the frosted fruit wherever the authorities would allow it. Practically none was offered for sale in Indiana.

"It has been suggested that frosted fruit should be allowed to be sold here, if so branded," said the state food and drug commissioner, in discussing the question. "This department does not so rule. Such a brand would be sufficient indication to the wholesaler or retail grocer of the condition of the fruit, but the consumer, buying in small quantities, would not be so advised and the possibility of fraud at the hands of the huckster and peddler, who distribute a large quantity of fruit, would be great. For this reason health officers and food inspectors were advised to keep careful watch of all consignments of California oranges and if, upon examination made by cutting them in half with a long, thin-bladed, sharp knife, dry cells are found in number exceeding the limit of 20 per cent, to refuse sale of such fruit."

The press of Indiana, as soon as it was informed that shipments of the damaged fruit had been consigned eastward, took up the fight to keep the products out of Indiana, and so far has succeeded admirably in stirring up the pure food officials to obtain this end.

The most unusual situation that has occurred in Indiana in many years is that which is now evident in the state legislature, which has been in session one-half of its biennial sixty-day period. Not a single bill bearing directly on the food question, as it relates to regulation of food products by the state department, is evident in either house, with the exception of an amendatory bill to the present weights and measures law, which seeks to broaden the provisions of that measure. That the Hoosier state is pretty well safeguarded on the pure food question for some years is evident from this dearth of measures.

The Spencer bill in the lower house seeks to amend the present weights and measures act to compel more counties in the state to take up the provisions of the measure. Comparatively few of the counties now have sealers of weights and measures and all should have them. The Spencer bill will bring approximately forty additional counties under the provision of the present law. It also changes the name of the sealer to that of inspector for the sake of uniformity.

The bill seeks to increase the salary of the state sealer, and also to appropriate $5,000 to carry on the work of the sealer's department in broader scope, and generally to provide that all goods of a food product nature to be sold by weight and measure instead of by the handful, sackful or other package.

A few bills have gone into each house seeking to strengthen the laws relating to food substances in minor ways. For instance, Senator Ratts has placed a bill in the upper house providing a penalty for returning empty milk, cream or ice-cream containers to the original owner without first cleansing them thoroughly. Much trouble has been experienced by the pure food and drug inspectors throughout the state on that score and, while the department is not back of the bill, it is willing to support it if need be.

Some prosecutions already have been made because milk sold on the Indiana market contained visible dirt. In a great many instances the dirt got into the milk because the container was dirty before it was refilled.

The month's resume of the work of the state department was noteworthy in the number of examinations and inspections made. Five prosecutions for violations of the pure food laws were successful, the fines totaling more than $100. Three actions were brought because inspectors found cider on the markets that contained benzoate of soda.

One dairyman was fined for selling milk containing visible dirt, and one ice-cream manufacturing company was fined for selling ice-cream which did not contain the requisite amount of butter fat.

Thirty-six condemnation reports were issued, eleven of them being issued against meat markets, nine against restaurants, five against bakeshops, and the remainder against drug stores, grocery stores and meat markets.

Of the 165 food samples analyzed at the state laboratories from all parts of the Indiana market, 100 were found legal, but of the sixty ciders examined, thirty-four were condemned as illegal. In by far the majority of such instances the condemnation was due to the detection of benzoate of soda in the product. This practice is in direct violation of the statutes, the state department believes, and cases have been filed against the manufacturers of the cider, nearly all of which was distributed by one dealer. A carload of cider, containing 101 barrels, shipped to Evansville, was seized under the Federal food law and is now in the custody of the United States marshal in this district. This cider contained benzoate, although the packages were unmarked.

Twenty-one of the twenty-nine samples of milk analyzed were declared illegal because of the presence of visible dirt. But twenty-one of the food handling establishments, numbering 913, inspected by the state department during the month of January, were classed "excellent." However, 602 were rated "good" and but two "bad."

United States Department of Agriculture

OFFICE OF THE SECRETARY.

FOOD INSPECTION DECISION 150.

FROZEN CITRUS FRUIT.

It has come to the attention of the Board of Food and Drug Inspection that, as a result of a recent freeze, citrus fruit that has been badly damaged by frost is being placed on the market.

Citrus fruit is injured in flavor by freezing and soon becomes dry and unfit for food. The damage is evidenced at first by a more or less bitter flavor, followed by a marked decreased in sugar, and especially in acid content. Fruit which has been materially damaged by freezing is inferior and decomposed within the meaning of the Food and Drugs Act.

For the guidance of those engaged in shipping citrus fruit, it is announced that, pending further investigation, the following principles will be observed in enforcing the Food and Drugs Act:

Citrus fruit will be deemed adulterated within the meaning of the Food and Drugs Act if the contents of any package found in interstate commerce contain 15 per cent or more of citrus fruit which, on a transverse section through the center, shows a marked drying in 20 per cent or more of the exposed pulp.

CARL L. ALSBERG,
W. D. BIGELOW,
A. S. MITCHELL,
Board of Food and Drug Inspection.

Approved.

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., January 24, 1913.

STORAGE BUTTER FROM PASTEURIZED SWEET CREAM TO BE SCORED.

Three hundred samples of sweet-cream butter which have been held in storage for a period averaging eight months will be examined and scored in the Dairy Division laboratory, Bureau of Animal Industry Department of Agriculture, Washington, D. C., on February 25, 26, and 27, 1913. An invitation is extended to all persons interested in such butter and in the methods used in its production to be present at that time, when they will have an opportunity to examine the butter and secure full information regarding its manufacture.

This butter was made for the Navy Department during the months of April, May, June, July, and August, 1912, from pasteurized sweet cream at five creameries located in Pennsylvania, Minnesota, and California. Its manufacture was supervised by inspectors under the direction of the Dairy Division, and complete records were kept of the acidity of the cream, the water and salt content of the butter, and its score at the time of packing. Each of the 300 samples represents a day's make and was taken for the purpose of determining its quality after having been kept in storage. Creameries in different parts of the country are showing considerable interest in the manufacture of butter of this kind. All who are interested are therefore given this opportunity to secure definite data concerning the manufacture of sweet-cream butter for storage, and to observe personally the final results.

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the 15th of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

California.

ASSEMBLY BILL NO. 9.
By Mr. Canepa, January 13, 1913.

An act to regulate the receiving and keeping of food in cold storage and regulating the sale of said food and providing a penalty for the infringement and violation of said act. Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 221.
By Mr. Schmitt, January 14, 1913.

To amend sections 9 and 16 of an act entitled "an act for preventing the manufacture, sale or transportation of adulterated, mislabeled, or misbranded foods and liquors, etc.," approved March 11, 1907.

Referred to committee.

SENATE BILL NO. 375.
By Mr. Juilliard, January 17, 1913.

Referred to Committee on Judiciary.

And

ASSEMBLY BILL NO. 477.
By Mr. Bowman, January 20, 1913.

Referred to Committee on Manufactures.

An act to regulate the sale of packages, cartons, cans, boxes, commodities and containers of all kinds, with the name and address of the original manufacturer thereof, providing for the enforcement of and penalties for the violation of the provisions of this act.

SENATE BILL NO. 788.
By Senator Boynton.
Same as Assembly Bill No. 966.

An act to provide for the indicating of the net quantity of food stuffs and stuffs intended to be used or prepared for use as food for human beings when sold or offered or exposed for sale in containers and providing penalties for violation thereof.

Referred to Committee of Judiciary.

Colorado.

SENATE BILL NO. 111.
By Mrs. Helen Ring Robinson.

A bill for an act preventing the manufacture, sale, storage or transportation of adulterated or misbranded foods and drugs, stating wherein misbranding of foods and drugs consists, regulating the slaughter of animals and their preparation for food, providing for the appointment of a food and drug commissioner, inspectors and analysts fixing their compensations, declaring penalties for violations of the laws, rules, regulations and standards, concerning foods and drugs and repealing a similar act approved March 7, 1907.

Indiana.

HOUSE BILL NO. 80.
By Hon. W. W. Spencer, January 15, 1913.

A bill for an act to amend sections 3, 4, 5, 6, 7, 8 and 9 of an act entitled "an act concerning scales, weights and measures, providing penalties for the violation thereof and for the selling and offering for sale of articles below standard, weight or measure as approved March 6, 1911, and providing that the sale of certain commodities shall be by weight or measure, and declaring an emergency."

Referred to Committee on Judiciary.

Iowa.

HOUSE BILL NO. 33.

An act to establish legal weights and measures, to provide for inspection of same and placing the enforcement of the act in charge of the dairy and food department.

HOUSE BILL NO. 49.

An act relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein, and defining the duties of the state dairy and food commissioner in relation thereto.

HOUSE BILL NO. 143.
By Mr. Robinson.
Also an identical bill.

HOUSE BILL NO. 220.
By Mr. Halgrims.

To amend section 3, chapter 174 Laws of the 34th General Assembly, relating to the misbranding of foods, and requiring that foods in package form be plainly and conspicuously marked with the quantity of contents in terms of net weight.

Both bills referred to Committee on Food and Dairy.

Maine.

HOUSE BILL NO. 29.
By Mr. Skelton.

An act to amend chapter 119 of the public laws of 1911 regulating the sale of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides and insecticides. The bill adds two new sections to the law section 23 providing as follows:

"For the purpose of this act an article of food in package form, if sold at a greater price than five cents, shall also be deemed to be misbranded if the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count. Provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made in accordance with section thirteen of this act, which shall not on the average reduce the weight, measure, or numerical count below that marked on said package. And further provided that the penalties of this act shall not be enforced on account of sale of food not branded in terms of weight, measure, and numerical count, purchased prior to January first, nineteen hundred and fourteen."

Massachusetts.

SENATE BILL NO. 118.

An act relative to the manufacture, sale or exchange of confectionery deleterious to the public health.

SENATE BILL NO. 119.

An act relative to the sale of insecticides.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

HOUSE BILL NO. 775.

An act relative to the sale of commodities by weight.

HOUSE BILL NO. 1160.

An act to regulate the manufacture and sale of fruit syrups.

Referred to Committee on Public Health.

HOUSE BILL NO. 1162.

An act relative to false stamping and labeling of receptacles containing articles of food.

Referred to Committee on Publbic Health.

HOUSE BILL NO. 1165.

An act to prohibit the adulteration of candy. This act amends section 6, chapter 213 of the Revised Laws so as to read as follows:

"Whoever, himself, or by his agent or servant, or as the agent or servant of another person, manufactures, sells or

exchanges, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, any toys or confectionery, containing or coated wholly or in part with arsenic, talc, saccharin, glucose, ethereal flavors (unless declared to purchaser), iron rust, burnt umber, mineral in any form, fat substitutes for chocolates, wood or denatured alcohol, benzoate of soda, salicylic acid, boric acid or glue, shall be punished by a fine of not less than fifty nor more than one hundred dollars."

Michigan.

SENATE BILL NO. 86.

By Senator Murtha.

A bill providing for the protection of the public health and prevention of fraud and deception by prohibiting the sale, the offering for sale or exposing for sale or the having in possession with intent to sell, of adulterated or deleterious sausage, defining sausage and prescribing the penalty for violation thereof.

Referred to the Committee on Public Health.

HOUSE BILL NO. 69.

By Representative Whelan, January 8, 1913.

A bill relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein and defining the duties of the State Dairy and Food Commissioner in relation thereto.

Minnesota.

HOUSE BILL NO. 128.

A bill for an act to amend section 1774, revised laws of Minnesota, 1905, so as to prohibit the misbranding of beverages.

HOUSE BILL NO. 319.

By Mr. Dunn.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight or the net measure of the contents thereof, and to provide penalties and punishment for violations of this act.

Referred to Committee on Food and Dairy Products.

Missouri.

SENATE BILL NO. 124.

By Senator Carter.

An act amending section 11967, article 1, chapter 125, of the revised statutes of Missouri, 1909, increasing the standard weight of a half sack of flour from 48 to 49 pounds, and the weight of a quarter sack from 24 to 24½ pounds.

Montana.

HOUSE BILL NO. 180.

By Mr. Rhodes.

A bill to regulate the sale of articles by weight, measure or count.

Nebraska.

SENATE BILL NO. 72.

By Mr. Haarmann, January 17, 1913.

A bill for an act to repeal chapter 4, Session Laws of 1897, being sections 9859, 9860, 9861, 9862, 9863, 9864 and 9865 of Cobey's Annotated Statutes for 1911, regulating the manufacture and sale of vinegars.

Referred to Committee on Manufacturing and Commerce.

SENATE BILL NO. 155.

By Mr. Hoasty.

An act making it unlawful for any person, firm, company or corporation to print, emboss or stencil or in any way to place the name of any other than his or their own name on such article as is manufactured by such person, firm or company or corporation any other name or title whether real or fictitious, placed upon any article manufactured than that of the person, firm, company or corporation so manufacturing.

SENATE BILL NO. 239

By Mr. Haarmann.

A bill for an act to provide for the manufacture, sale and branding of vinegar.

SENATE BILL NO. 261.

By Mr. Jones.

An act to repeal sections 1 to 68 inclusive of article 1, chapter 37 of the Session laws of 1907-8, relating to the pure food commission.

Referred to committee.

A similar bill was introduced into the House by Mr. Cook.

HOUSE BILL NO. 377.

By Mr. Frank C. Yates.

A bill to amend section 9825 of Colby's annotated statutes of the state of Nebraska for 1911, relating to misbranding of drugs.

Referred to Committee on Retail and Commerce.

HOUSE BILL NO. 384.

By Mr. Druesedow et al.

An act to make it unlawful "for any person, firm, association, corporation or co-partnership to store butter, eggs or other perishable food stuffs for a longer period than 90 days. Such food stuffs when so stored shall have thereon a plain, white wrapper with red letters and figures printed in clear, legible type, showing the date on which such food stuff was stored.

Referred to Committee on Manufactures and Commerce.

New Hampshire.

HOUSE BILL NO. 167.

By Mr. Brennan.

An act establishing a standard of weights and measures.

New York.

HOUSE BILL NO. 451.

By Mr. Willmott, January 22, 1913.

An act to amend the general business law in relation to the marking of canned goods and providing for placing on label date when packed.

Referred to General Laws Committee.

Ohio.

HOUSE BILL NO. 53.

By Mr. King.

A bill to amend section 7965 of the General Code, relating to the duties of the State Sealer of Weights and Measures.

HOUSE BILL NO. 54.

By Mr. King.

A bill to amend section 6418-1 of the General Code, relating to articles sold by avoirdupois weight or numerical count.

HOUSE BILL NO. 210.

A bill to amend section 375 of the General Code, relating to the duties of the State Dairy and Food Commissioner.

Oklahoma.

HOUSE BILL NO. 336.

By Mr. Welty.

A bill entitled "an act to regulate the sale of non-intoxicating beverages, compound extracts, flavors or syrups; prohibiting the sale of non-intoxicating beverages to which has been added any quantity of certain specified drugs, providing penalties for the violation of this act and repealing all laws or parts of laws in conflict with same, and declaring an emergency."

Oregon.

SENATE BILL NO. 83.

By Senator Burgess.

Requires cold storage plants to make full reports to the state dairy and food commissioner as to the quantity of meats, eggs, etc., on hand and their value, and requiring same to be published.

HOUSE BILL NO. 166.

A bill for an act to amend section 4900 Lord's Oregon Laws, the same being section 2, chapter 167 of the General Laws of Oregon for 1907, and relating to misbranding of food or articles which enter into the composition of food.

SENATE BILL NO. 194.

By Mr. Stewart.

A bill for an act to prevent branding of domestic merchandise as "imported."

HOUSE BILL NO. 247.

By Mr. Stranahan.

A bill for an act to regulate the sale of artificially bleached flour within the state of Oregon. Section 1 reads:

"It shall be unlawful for any person, firm or corporation to sell, or offer to sell, any artificially bleached flour in this state, for use and consumption as food, without plainly labeling the sacks or other containers in which such artificially bleached flour is sold, or offered for sale, in such man-

ner as to give plain notice to the purchaser of the character of the flour."

Pennsylvania.

SENATE BILL.

An act for the protection of the public health by providing for the regulation and control of the sanitary conditions surrounding the preparation, handling, storage and serving of foods in hotels, restaurants and dining cars; defining hotels, restaurants and dining cars; imposing certain duties upon the dairy and food commissioner in reference to this act; and providing penalties for violation of same.

SENATE BILL.

An act for the protection of the public health and the prevention of fraud and deception in the manufacture, labeling or sale of milk products; defining such milk products, fixing the standard thereof, and providing penalties for the violation of the provisions of the act.

SENATE BILL.

An act for the protection of the public health and the prevention of fraud and deception, by regulating the sale of cold storage poultry, game, eggs and fish, providing penalties for the violation thereof, and providing for the enforcement thereof.

SENATE BILL.

An act supplementary to an act entitled "An act for the protection of the public health, by prohibiting the sale, offering for sale, exposing for sale, or having in possession with intent to sell, of eggs unfit for food as therein defined, and prohibiting the use of such eggs in the preparation of food products; providing penalties for the violation thereof, and providing for the enforcement thereof," approved March 11, 1909, providing for the denaturing by kerosene of all eggs unfit for food, within the meaning of said act, and providing penalties for the violation thereof.

SENATE BILL NO. 5.
By Mr. Gerberich.

An act relating to food, providing for the protection of the public health, and the prevention of fraud and deception, by prohibiting the manufacture or sale, the offering for sale or exposing for sale, or the having in possession with intent to sell, of adulterated, misbranded or deleterious foods, and of foods short in weight or measure.

Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 7.

An act relating to non-alcoholic drinks, defining same and prohibiting the manufacture, sale, offering for sale, exposing for sale, or having in possession with intent to sell, of any adulterated or misbranded non-alcoholic drinks.

Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 10.
By Mr. Gerberich.

An act to amend an act approved May 11, 1911, entitled, "an act to provide for appointment of county and city inspectors of weights and measures, providing for their compensation and expenses, prescribing their duties, prohibiting vendors from giving false or insufficient weights and fixing the penalties for violation of the provisions thereof," by regulating the appointment and compensation of the inspectors, extending their powers and duties and changing the penalties for violation of said act.

Referred to Committee on Judiciary General.

SENATE BILL NO. 11.
By Mr. Gerberich.

A bill defining commodities and regulating sale thereof.

Referred to Committee on Public Health and Sanitation.

Rhode Island.

HOUSE BILL NO. 21.
By Representative Baldwin, January 14, 1913.

An act regulating the sale of food products.

Ordered to table until appointment of committees.

HOUSE BILL NO. 117.
By John H. Richards.

An act amending section 6 of chapter 183 of the general laws so as to read:

Section 6. A drug or an article of food, or an article which enters into the composition of food, shall be deemed to be misbranded:

First. If the package containing it, or the label on such package shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, or if the same is falsely branded as to the state, territory, or country in which it is manufactured or produced, or if such article is preserved or packed in tin can, glass or earthen jar or vessel has not thereon plainly stamped or marked the day, month and year when such article was placed therein, or where said tin can, glass or earthen jar or vessel is relabeled or recovered and the label or cover thereof shall fail to have a statement of said relabeling or recovering and the date when such article was placed therein.

Tennessee.

SENATE BILL NO. 152.

An act to prevent frauds in the measure or measurement of articles sold in Tennessee.

Texas.

SENATE BILL NO. 44.
By Mr. Gibson.
and
HOUSE BILL NO. 19.
By Mr. Morris.

A bill to be entitled "an act to prevent fraud upon the public by requiring manufacturers to place their own name and addresses upon manufactured articles, together with a statement of the material or materials used." The act applies to any "article or commodity that enters into commerce."

HOUSE BILL NO. 205.
By Mr. Morris.

An act to prohibit and prevent the use of benzoates and saccharin and mixtures containing benzoates and saccharin, in the preparation of food and beverage compounds.

HOUSE BILL NO. 316.
By Mr. Morris.

An act providing for the licensing of the sale or exchange of any beverage, syrup, mixture or compound in the preparation of which caffein or extracts of caffein have been used; prohibiting their sale or exchange to minors and fixing penalties.

Utah.

SENATE BILL.
By Mr. Williams.

General food and drugs bill, which includes incorporation of the Federad Food Law with the addition of the provisions that foods shall contain no habit-forming ingredients; that foods sold in package form shall be labeled with correct weight and measure; prohibits mis-statements relative to foods in labeling and advertising; provides for baking powder containing salts or compounds of alum shall be labeled alum.

HOUSE BILL NO. 24.
By Mr. Monsen. (By request.)

This bill provides that "Any person, firm, company, association or corporation, foreign or domestic, doing business in the State of Utah and engaged in the business of buying milk, cream or butter fat for the purpose of manufacture, or of buying poultry or eggs for the purpose of sale or storage, that shall for the purpose of creating a monopoly or destroying the business of a competitor, discriminate between different sections, communities, localities, cities or towns of this State by purchasing such commodity or commodities at a higher price or rate in one section, community, location, city or town than is paid for the same commodity by said person, firm, company, association or corporation in another section, community, locality, city or town after making due allowance for the difference, if any, in the grade or quality, and in the actual cost of transportation from the point of purchase to the point of manufacture, sale or storage, shall be deemed guilty of unfair discrimination which is hereby prohibited and declared to be unlawful but prices made to meet competition in such locality shall not be in violation of this act

Vermont.

HOUSE BILL NO. 476.

An act relating to the sale of commodities, being a net weight bill introduced as a substitute for House Bill No. 89.

Referred to committee.

Wyoming.

SENATE BILL NO. 6
By Mr. Chrisman.

A bill to amend sections 2, 8, 10 and 11 of chapter 104 of the session laws of 1911, and relates to the adulteration of drugs, confectionery and foods.

SOME NORTH DAKOTA RULINGS.

The food commissioner of North Dakota, on February 10, issued from his office the following rulings:

FROZEN FRUIT ILLEGAL.

The damage that has come to fruits in citrus growing regions through freezing, has caused much of the fruit to be unfit for general use. The department holds that immature fruit that has been frozen or artificially ripened is illegal under the provisions of the North Dakota food law.

The department will, therefore, contest the sale of any and all frozen fruit or fruit which has been artificially ripened. Notice is hereby served upon the wholesalers and jobbers of fruits, as well as the retailers, that violations of the law as indicated will be prosecuted by the department.

WILD MUSTARD.

The department holds that the use of wild mustard or charlock as an added constituent of either mustard flour or in mustard relishes, salads, etc., under the name "mustard," or "prepared mustard" without any further statement, is a violation of the law. Wild mustard or charlock is not an article of food, and it is questionable whether its use is not injurious to the individual.

The department will, therefore, class as illegal all of those products which are found to contain wild mustard or charlock without being labeled in compliance with the requirements of the Food Law. Manufacturers and dealers will, therefore, be expected to comply with the provisions of the statute and failure to do so will be considered as cause for prosecution.

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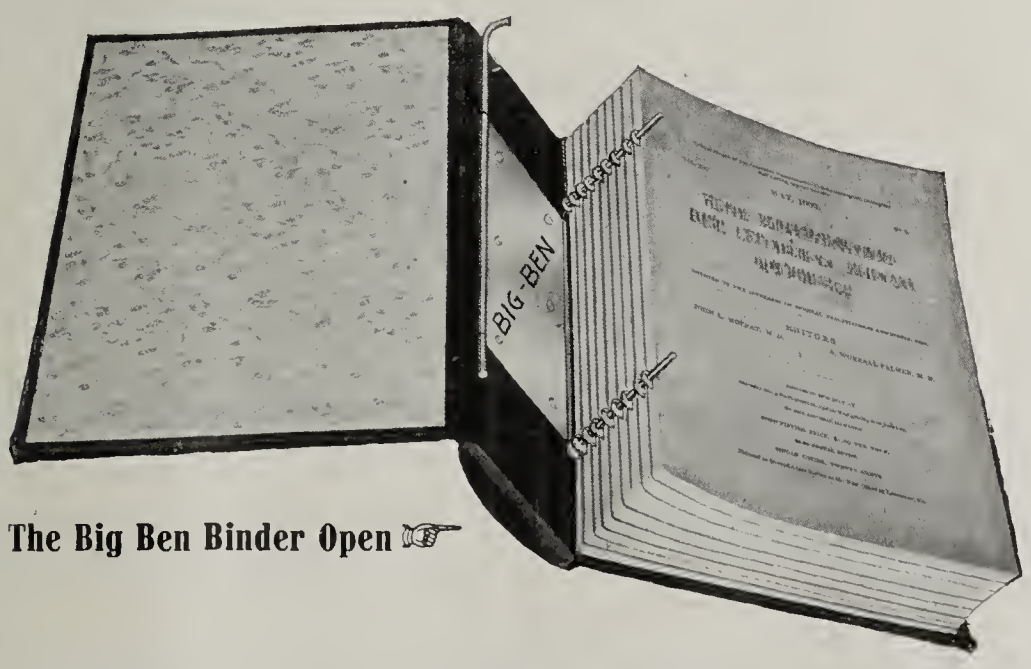
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THE AMERICAN FOOD JOURNAL



VOLUME EIGHT
NUMBER THREE

Chicago, March, 1913

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VOLUME VIII. MARCH, 1913 NUMBER 3.

Retailer of the Future Will Be Better Educated

THE demands of the times must always be met, and if those upon whom they are made do not respond with knowledge and courage equal to the occasion then they will be pushed aside, and more progressive and competent persons will take their places. This is but a variation of the old story of the "survival of the fittest."

What the future will demand of retail merchants dealing in food products, the present is an earnest. No man can really see into the future, and know positively what it holds, but many far-sighted individuals by studying the tendencies of the present have been able to accurately gauge what events one may expect in the particular domain they study.

Retail merchants today are finding it somewhat irksome often to defend themselves against charges of economic remissness, which they deem unjust, and for being party to transactions over which they may have no control and for which they have no guilt. They resent the accusation that they are primarily responsible for the high prices of the products they handle, or should be taken to task for purveying foods not up to the highest standard of purity and excellence. They look to the manufacturer for protection in respect of purity and, indeed, are upheld in this by the law, which holds the producer or wholesale dealer of eatables as responsible for their wholesomeness and correct labeling, not the retailer.

Too many retailers choose to consider themselves merely the impersonal go-between between the wholesaler or manufacturer, as the case may be, and the consumer. To the manufacturer they cry that they sell what their customers demand, and call upon the manufacturer to shape that demand through wide publicity advertising. To the consumer they bring the excuse that they can only sell what the manufacturers choose to offer on the market.

This system, crudely outlined above, seemed to serve in the past, but will not suffice for the present or the future. Of recent years evidences have been growing that consumers are taking a more lively interest in the economical problem of food distribution, driven to that interest both by much agitation for purer and more wholesome foods, better sanitation everywhere, and by the steady rise of prices asked for commodities, this latter fact being a very effective goad for the awakening of the people.

The complaint is often heard that retail food dealers have not been as wide awake and progressive in all too many instances as they might have been, and so are unprepared to meet the demands of an intelligent and aroused public demand. This may or may not be true in a sufficient number of cases to warrant conspicuous mention. We are not disposed to argue the premise at this time. What is true, however, is the fact that buyers of foods are becoming more and more minutely informed as to the products they purchase than ever before, and an intelligent clientele demands an equally intelligent or even more intelligent person to serve their wants.

What does all this demand we have for the compulsory teaching of domestic science in the public schools mean to retailers? It means simply this: That the coming generation of buyers at grocery stores and meat markets are going to be decidedly well educated as to their wants, and the groceryman who shall serve them well and intelligently must have experimental knowledge of the products he offers for sale. Now, some people may be inclined to deceive themselves into thinking that this demand for dietetic and scientific knowledge is not general and is limited to a few faddists in the cities. This is not the case, however, but the whole country is alive to the advantages of such education for girls and women, and is demanding that they be given opportunity to acquire it.

The writer of these paragraphs had the pleasure of attending a recent annual meeting of the Household Science Department of the Illinois State Farmers' Institute, and the keynote of the whole meeting was education of girls along these lines of household science and dietetics. They discussed dietetics and pure foods, and they had a great deal to say about this

domestic science education for their girls. They wanted good roads, so they could have centralized schools, in order that they might have compulsory household science education in their schools. The signs cannot be mistaken. The generation of food buyers now growing up will be more intelligent and more critical and less easily influenced than any that has preceded them. They will know beyond doubt what they want, what is good for them, and how to get it, and woe betide the business of the dealer who does not rise to the occasion and respond to the demand of his customers. The dealer must also be educated along these lines, else he will not be able to cater to his clientele.

These schools are not only giving the necessary scientific education to enable the individual to judge of food values by callories and to decide which are energy or muscle producing, but they are going into the cost of the various foods, and that means they will touch upon the economic side of the problem, also. In other words, the coming generation will in general know a whole lot more about your business and how it is or should be conducted than has any that has ever gone before, and the new conditions will require their appropriate treatment.

The process of evolution is always interesting to follow. In the first days of organization of commercial bodies, only those directly interested were admitted into the secrets of their deliberations. For instance, the retailers organized and had nothing to do with the wholesalers, who also had their own organization. Then there were the manufacturers, who consulted among themselves, but gave the cold shoulder to the wholesalers when it came to a discussion of trade questions or distribution methods. Gradually the idea of coöperation came to these interests; then wholesalers were invited to talk over matters with the manufacturers, and vice versa; the retailers were invited to a confab with the wholesalers and, finally, the three got together at last recognizing that the manufacturer, the wholesaler and the retailer all had interests in common, and that these could be best served by mutual consultation.

Still, the public was left out as a "thing apart," it being contended that they had no possible interest in the purely commercial phases of manufacture and distribution. The whole aim of the three interests was to secure the patronage of the consumers, but the methods and maneuvers to gain that end could be of no possible interest to those whose money their angling designed to catch. Even this mistaken notion has been swept away at last, and the barriers between producers, distributors and consumers are being rapidly eliminated, and the whole question of food supply, from the standpoint of every interest, is being studied. The latest development is active coöperation between organized associations of food dealers and consumers—women mostly, in the case of foods—as represented by women's organizations, clubs, etc.

Witness the recent acts of the Illinois retailers in coming into coöperation with the women's clubs of that city.

The officers of the Grocers' and Butchers' Association of Chicago and the president of the Illinois Retail Grocers' Association, and some others interested in that relation, decided to begin a campaign designed to bring the consumer and the retail dealer into closer cooperation, the object being to come to a thorough understanding of each other and to work together on lines of mutual interest.

These gentlemen met the Federation of Women's Clubs of Chicago and after a long session lasting several hours it was agreed that they should work cooperatively along certain lines. Later the women attended a meeting of the retailers' association in its rooms and an apple sale was arranged and the same was handled with great success and satisfaction to all concerned. This apple sale was participated in by the wholesaler, retailer and consumer. It is announced that work is going to continue in this coöperative way between distributors and consumers and the Chicago retailers have appointed a permanent committee to coöperate with the women's clubs.

Then the report comes from Cleveland, Ohio, that the board of directors of the Cleveland Retail Grocers' Association held a meeting and decided to invite all women's organizations of that city to a conference having for its object the same kind of coöperation as is being practiced in Chicago. In other cities, also, the idea is being tried out, and it is only a question of time when this latest and best coöperative movement will be general all over the country. It means a new class of retailers, or rejuvenated old ones, and of the retailer of the future still more will be demanded by an increasingly enlightened public.

JAMES WILSON, THE USEFUL.

THE remarkable cabinet career of James Wilson, for sixteen years Secretary of Agriculture, closed on March 4 without a blemish on his official or personal shield of honor. No man has ever served in a cabinet position so long as Mr. Wilson, and the advent of the new administration at Washington on March 4 brought no more regrettable change than that of the retirement of this man who served the nation with such distinguished success as Secretary of Agriculture.

In the editorial columns of the *Chicago Inter Ocean* of March 7 there appeared under the above heading an appreciation of Mr. Wilson so just and comprehensive that we are glad to repeat it here:

"With the change of national administration last Wednesday there passed out of public life a man who may well be termed one of the most useful members of the cabinet the United States has ever had. We refer, of course, to the Hon. James Wilson, who on March 4 ended sixteen years of service as Secretary of Agriculture.

"Born in Scotland in 1835, James Wilson came with his parents to Connecticut in 1852, and at the age of 20 took Horace Greeley's advice to young men to 'Go West and grow up with the country.' He went to Iowa and to a college there, and became not only a personally successful farmer but one with the faculty of showing others 'how to do it.'

"He was no narrow specialist. He did his share of the work of public life, serving three terms in the legislature and three in congress, on the state railway commission and as regent of the state university. But his main interest was in farming and in agricultural education and in 1890 he became director of the experiment station and professor in the state agricultural college at Ames, whence William McKinley took him to be Secretary of Agriculture.

"At that time the Department of Agriculture was still a theme of humorous paragraphs in the newspapers. It had grown out of what is now one of its bureaus, that of 'animal industry', at whose head was Norman J. Colman, and whom Mr. Cleveland made head of the new department. Mr. Colman had done much good work in his special line, but had no opportunity to show what he might do in the broader field.

"President Harrison appointed former Governor Jeremiah M. Rusk of Wisconsin, a practical farmer, but without much constructive imagination. President Cleveland in his second term named former Governor J. Sterling Morton of

Nebraska, who had many ingenious ideas and filled the office with distinction.

"Of the four heads of the Department of Agriculture it may be said that Colman was the pioneer, Rusk represented the farmers who were to be benefited and inspired their confidence, Morton was fertile in ideas and established high ideals of public service, and Wilson combined the talents and abilities of all his predecessors and made his department truly great and of world-wide renown. Under the leadership of James Wilson the United States Department of Agriculture has become the model for every country seeking to apply to farming the discoveries of scientific research.

"Nor was the public service of James Wilson limited to his own department. In the agitated days of the spring of 1898, when some conspicuous public men were running in circles and asking what there was in the murder of the Maine that could not be settled with money, James Wilson stood as a stone wall among the President's advisers for the only course consistent with the nation's honor, the course that was taken.

"We have had cabinet ministers who rendered more conspicuous service on particular occasions and in great emergencies. We have had none whose work was more useful in so many ways to such great numbers of citizens as that of James Wilson. He broke all records in that way, as he broke them in the length of his term of service."

LABEL LEGISLATION RUN WILD.

PURE food legislation pending in the various law making bodies in session last winter or at the present time has dealt largely with labeling propositions, and laws with net weight requirements have probably been the most numerous. Some of these are short and to the point, merely requiring that the correct net weight be stated on food package labels, and in some cases variations are provided for. Other bills contain exceedingly comprehensive and drastic provisions such as are impossible of compliance on the part of even the most willing manufacturers. In this latter class are Senate Bill No. 44 and House Bill No. 19, identical measures introduced into the Texas legislative branches.

The bill contains many unreasonable and well-nigh impossible requirements. It is most sweeping in its application, covering "the sale of, production of, or manufacture of any article or commodity that enters into commerce," not merely such commodities as are commonly sold in package form. Every commodity must have printed, embossed, or stenciled upon it the name and address of the manufacturer, and a statement of the material or materials used in its manufacture either upon the article or commodity itself, or upon a label, or brand, or wrapper, or package containing it.

Sections 1 and 2 cover almost every conceivable thing that is bought or sold.

Section 5 makes its violation a misdemeanor, punishable with heavy penalties.

Section 6 is obviously taken from a pure food law, providing for the exemption of a dealer when he obtains a guaranty signed by the wholesaler, jobber or manufacturer to the effect that an article is not *adulterated or misbranded* within the meaning of this act, whereas nothing had previously been said about adulteration or misbranding.

Section 7 provides for condemnation, confiscation or forfeiture of any article of commerce not labeled in accordance with the provisions of the act, the enforcement of which is made one of the duties of the Dairy and Food Commissioner. It becomes effective January 1, 1914.

The bill would apply to imported goods as well as those of domestic manufacture, and practically put an embargo on the sale of goods manufactured abroad.

Nothing from a box of matches to a grand piano or a house could escape its application. It would seem impossible that such a bill could be seriously considered by the committee to which it had been referred, much less be reported in anything like its present shape.

This is surely label legislation running wild. It is probable that the opposition to the measure will kill it, but it is to be regretted that any energy whatever should be required to forestall legislative action of this character. Such bills should never be introduced into a legislature, much less considered seriously by the members.

ANOTHER BIT OF BAD TASTE.

FOR the most part the public has assumed a "waiting attitude" in reference to the change of administration of our government, which took place on March 4. President Wilson himself preserved a uniform silence concerning matters of policy which he would inaugurate on assuming the office of president, and his cabinet appointeees since the announcement of their names have been equally reticent. There is, however, no reason to believe otherwise than that President Wilson has chosen an excellent corps of advisers. Practically no criticisms of his selections have come to our attention, the single exception—there always has to be an exception, you know—being the *Elgin Dairy Report,* which stoops to make insinuations against the secretary of agriculture. That publication calls his appointment "somewhat of a surprise," "somewhat strange," etc., and says it is "wondering why this appointment was made." At the same time a gentle slap is taken at President Wilson falsely charging him with not recognizing the West in his selection of a cabinet.

All of the insinuations referred to are, to say the least, in execrable taste inasmuch as no part of the past records of either of these gentlemen has anything in them to warrant anything but the expectation that they will perform their official duties with intelligence and fairness to all interests. Secretary Houston certainly has an honorable record of much work well done along scientific agricultural lines, is well known in circles from which it would seem to be natural to expect the best of timber for the position of secretary of agriculture, and at any rate should be given a chance to prove himself before criticism such as that referred to above is directed at him.

NOTICE OF CHANGE OF PUBLICATION DATE.

WE wish to advise our readers, correspondents and advertisers that the publication date of THE AMERICAN FOOD JOURNAL will be changed beginning with the next—April—number, and hereafter the magazine will be issued on the first of the month of issue instead of the 15th, as heretofore. This advances our publication date two weeks. Correspondents should accordingly see that matter for publication reaches our office by the 27th of the month preceding publication.

COMMISSIONER EMERY REAPPOINTED.

The governor of Wisconsin has reappointed Mr. J. Q. Emery to the office of dairy and food commissioner of Wisconsin.

CANNED FOODS WEEK.

THE week from March 31 to April 6 has been designated as "Canned Foods Week," and all factors interested in the production and distribution of this class of products are making strong, concerted efforts to have the week generally observed throughout the United States. An immense amount of information concerning canned goods, their convenience and wholesomeness, has been disseminated, and it is safe to say that never before has the general public been given opportunity to become so well informed as to the value of canned foods as is now the case.

The AMERICAN FOOD JOURNAL is glad to do its part in this work, and is therefore giving considerable space to canned foods subjects in this issue.

Millions of dollars are represented in the value of the annual product of canned vegetables, fruits, fish and oysters produced in the United States.

The great staples are tomatoes, corn, peas, beans, asparagus, pumpkin and sweet potatoes; peaches, apples, apricots, pears, berries, cherries; salmon, sardines and oysters.

In making a comparison of the cost of canned and fresh products of the same kind, a number of factors must be taken into consideration. First, the cost of raw material and the waste when purchased in the small quantity used in a single meal; second the cost of labor and preparation used in making it ready for the table. It should be remembered that most canned foods are sufficiently cooked in the container and only require warming to suit the taste or purpose at hand. With vegetables like peas, asparagus, stringless beans, etc., brine is used merely to flavor the contents. Even the salt is not essential to keeping quality. In the case of fruits, sugar syrup is used merely to flavor—for sugar is not in any way necessary for keeping qualities. The housewife frequently throws away the surplus fruit syrup found in the can, not realizing that it can be used in numerous ways, for instance as a sauce for puddings. Canned goods are sterilized by heat alone and nothing harmless or harmful is necessary to preserve them.

Shrinkage in cooking must be taken into account in many products. A short time ago the housewives and butchers of a certain town were greatly stirred up over the question of who was entitled to the trimmings of the meat purchased. When buying canned meats this question is entirely avoided, for there are no trimmings in the case of any kind of canned foods.

One writer tells us that authoritative tests show that 90 per cent of the natural flavor of sugar corn is lost when the ear has been removed from the stalk twenty-four hours. Many of the large corn canneries put the product into the cans in six or less hours after it is cut from the stalk, thus getting the larger per cent of the natural flavor.

In the case of canned products also it must be remembered that the large canneries get their supplies from growers who are instructed what are the best varieties of seed to plant for canning purposes; and experts have spent much time and money to learn which are the best varieties of a given product to plant on a given soil for canning. Careful seed selection is one of the first items of importance in securing a good canning article.

The elimination of the hand has been almost entirely accomplished in the case of a majority of canned products, and in this connection it should also be remembered that after the food is once placed in the cans there is no opportunity for contamination. The containers are hermetically sealed and once the food is canned it will not deteriorate. The only way for canned foods to become unwholesome is through a defective can or one not properly sealed, and then fermentation swells the can and detection is easy. The product absolutely does not change after it has gone into the can; that is impossible.

Some canners maintain that the cold storage problem will eventually be solved in large measure in reference to many products via the canning route. In other words, the public will grow to prefer the canned product in place of the so-called fresh article from the cold storage warehouse.

Refrigeration is valuable beyond computation in countless ways, but a wearing away of prejudice against canned goods will tend to keep some classes of foods out of storage and place them in cans for keeping for future use.

NET WEIGHT CLAUSE ADDED TO NATIONAL PURE FOOD LAW.

THE following amendment to the National Pure Food and Drugs Act, was passed by the Congress just closed:

"Third.—If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count: Provided, however, That reasonable variations shall be permitted, and tolerances and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provisions of section 3 of this act."

The above legislation seems to be in line with public demand, and manufacturers of food products which are put up for sale in packages will doubtless be able to comply with the requirements of the act without difficulty, in view of the fact that provision is made for tolerances and exemptions as to small packages.

Many state legislatures have up before them bills calling for the statement of net weight on packages, and now that the provision has been incorporated in the national law it is only a question of time when all states will follow suit.

There is one vitally important point which all state law making bodies should remember, however, and that is the necessity for making these net weight labeling laws uniform and identical with the national law. From a commercial standpoint the United States are a unit, and their boundary lines imaginary. Extreme confusion is caused when shipping goods into the various states by manufacturers whose goods are nationally distributed if laws of this character are not uniform. The interests of the public are entirely preserved in this net weight amendment of the federal pure food law, and it would seem there could be no possible justification for any state passing a statute on this subject with any additional or conflicting requirements.

Legislatures having these net weight bills up for consideration should have their attention brought directly to this matter of the necessity for uniformity, and insist that such bills carry the same wording as that of the national law—no more and no less.

The Washington Point of View.

By Our Staff Correspondent.

WASHINGTON, March 10.—Daniel Franklin Houston, the new secretary of agriculture and *ipso facto*, the man charged with the administration of the food and drugs act, meat inspection, cattle quarantine and other laws for the conservation of the health of the American people through prevention of interstate commerce in deleterious, unwholesome and misbranded articles of food, is a young man and a real progressive. He has known James Wilson, the real creator of the department. He has lived in the South where more pæans are being sung to James Wilson than in any other part of the country, because he did more for the agriculture of that section than for any other.

Another fact with regard to him is that he asserts that most of the positions in the department of agriculture are in the classified service and he speaks in a way to indicate that he is setting forth a fact that will be of influence at least if not persuading force with him; not cynically as if he intended to make use of the fact merely to shield himself from the importunities of place hunters.

But that is not all. He has been president of two big institutions, and is a graduate of Harvard, taking his master's degree in 1892 and receiving the LL. D. from Tulane in 1903.

What more need be said to lead any reasonable man to understand that he is a real progressive, not merely a blatant demagogue using platitudes indicating anxiety for the public health as a cloak to hide sinister work for his pecuniary benefit. No man with the training and experience he has had could be a demagogue. No man with the associations he has had could put forth the weird propositions of law and chemistry that disgraced the chemical and law branches of the department of agriculture for years before changes in rules and finally a change in personnel brought about the satisfactory and harmonious situation that now prevails in the bureau of chemistry and in the law branch of the department.

James Wilson and George P. McCabe are gone but it is believed the sane methods they were able to establish in the department, in respect to the enforcement of the food and drug act will be continued. There is harmony in the bureau of chemistry. The men who supported Dr. Wiley during the disturbance in the department which should never have been permitted to reach the proportions it did, are supporting Dr. Alsberg and unless what now seems impossible is permitted to take place, the bureau will fulfill the purposes of its creation as it never did before. It will gather evidence to be used by the lawyers for the government to sustain legally framed charges of adulteration or mis-



DAVID FRANKLIN HOUSTON,

Appointed Secretary of Agriculture, United States Department of Agriculture, by President Wilson, March 4, 1913.

University chancellor; born Monroe, Union County, North Carolina, February 17, 1866; son of William Henry and Cornelia Anne (Stevens) Houston A.B., South Carolina College, 1887; A.M., Harvard, 1892; (LL.D., Tulane, 1903, University of Wisconsin, 1906). Married Helen Beall, of Austin, Texas, December 11, 1895. Tutor in ancient languages, South Carolina College, and graduate student, 1887-8; superintendent of city schools, Spartanburg, South Carolina, 1888-91; graduate student, political science, Harvard, 1891-4; adjunct professor, 1894-7, associate professor, 1897-1900, professor political science, 1900-2, and dean of faculty, 1899-1902, University of Texas; president of Agricultural and Medical College, of Texas, 1902-5; president of University of Texas, 1905-8; chancellor, Washington University, St. Louis, since September 24, 1908. Member Southern Educational Board; trustee John F. Slater Fund; member Rockefeller Sanitary Commission. Fellow Texas State Historic Society; member American Economic Association; president Harvard Graduate Club, 1893-4. Author: A Critical Study of Nullification in South Carolina, etc. Address: Washington University, St. Louis.—Who's Who in America.

branding, and not seek to confuse the public by insisting that the bureau, because it is charged with the duty of examining samples, is also charged with the duty of prosecuting cases, and that, too, on the whimsical assertions of a chemist who later says he cannot go on the stand to testify as an expert.

Intellectually, the new head of the department is on terms of equality with the members of the Remsen board who passed on the question that made most trouble for James Wilson. Even if he is not personally able to judge of the value of the experiments made by Remsen and his associates he is so closely in touch with the leading educators of the country that he is able to appraise the value of the work they did. Incidentally, if he does not care to treat the benzoate question as *res judicata*, he will be able to judge the work done under the direction of Dr. Wiley. On form, therefore, as the sporting writers would say, there is no likelihood of the benzoate question being revived or that "What is whiskey?" will ever attain the vogue it once had by reason of the foolish mixing of personal prejudices, half-baked conceptions of law, with a lot of the jargon of chemistry that had no relevancy to the issue.

The new secretary, in speaking with the newspaper correspondents, said he had followed the controversies that existed in the department but that is as far as he went. So far as any of them have been able to learn he has never gone on record with regard to any of them, which is a fact tending to support the assertion that he is a real progressive. He does not judge until he knows the facts and avoids judgments on matters that are none of his immediate concern and which any one with half an eye can see are not essential as matters of health but mere matters of trade rivalry and jealously.

Mr. Houston has the reputation of being better able to hold his own counsel than any other living American. He rode to Washington, with a full knowledge of why he was coming, with Governor Major of Missouri and former Governor David R. Francis, without giving them even an inkling that he had been selected to be secretary of agriculture. He discussed other members of the cabinet; that is, he discussed the names the newspapers said belonged to men who would be in the cabinet, as impersonally as if the possibility of his ever having them as associates had not occurred to him. Messrs. Major and Francis did not know that Professor Houston was to be in the cabinet until Hastings MacAdam, the Washington correspondent for the *St. Louis Republic*, an institution in which ex-Governor Francis has a large stock interest, told the Missourians about Houston's selection.

Unnamed Missourians who are looking for political plums have growled somewhat on account of Houston being credited to their state. He has lived in the state for only four years, coming thither from Texas, where he had been president of the University of Texas. He is a North Carolinian and the jealous Missourians suggested that he should be credited to that state. That, however, is only a little disappointment growing out of the fact that Dr. Houston was selected without the advice or consent of any Missourian. It amounts to nothing, other than showing the disappointment leaders feel when somebody fails to give them the homage they deem their due on account of their leadership.

If Secretary Houston follows the civil service idea, he will have only two or three places to fill. The most important are those of assistant secretary and solicitor. Assistant Secretary Hays is still in office, while the vacancy created by the resignation of George P. McCabe is a week old. So far as finding a man for that place is concerned, the new secretary had ample time to look around because of the fact that Mr. McCabe had announced his intention of staying not one minute longer than his chief, months and, to his intimates, years before March 4. The probability is that Secretary Houston did not know he was to be the head of the department long enough before March 4 to enable him to think of anything other than making a change of residence.

Mr. McCabe came up through the ranks of the classified service and it is not too much to expect that Secretary Houston will follow the rule of the merit system to the extent of promoting some one in the solicitor's office to fill the McCabe vacancy. In his relations with the secretary, the solicitor for the department of agriculture is a personal adviser, much closer to him, if he is the right man in the place, than even the assistant secretary, unless the latter has also been chosen by the head of the department. Assistant Secretary Hays was not chosen by Secretary Wilson. President Wilson appears to be allowing his heads of departments to choose their assistants. If he actually does that, the assistants will be close advisers of their chiefs instead of being men waiting around to step into the shoes of the head of the department, while he absents himself for a period too long to allow the routine mail matter of the department to go without signature. As now organized, the assistants to the heads of departments have little, if anything, to do with the formulation of departmental policy. As a rule they are expected to keep the personnel in order; that is, to see that none of the clerks stay away from work too long to be tolerated even in the public service, and that they pay their debts with reasonable promptness.

SULPHUR REPORT COMING.

THE Referee Board of Consulting Scientific Experts has reported upon the influence of sulphurous acid and sodium sulphite on the nutrition and health of man. This report will result in the marked restriction of sulphur dioxide and its derivatives in all food products. It will result in the prohibition of sulphur dioxide and its derivatives in products in which it conceals damage or inferiority, and will result in fixing low maximum limits for products in which at present sulphuring is apparently necessary in production. It will enable the careful fruit grower to use sulphur in moderation preliminary to drying, but it will prevent resulphuring and adulteration with water. The full report of the Referee Board is being carefully studied by Dr. Alsberg, chief of the Bureau of Chemistry, and the pure food board and within a few weeks the report will be made public and a departmental decision will be promulgated.

This report will be published in full in THE AMERICAN FOOD JOURNAL as soon as it is issued.

MISSOURI HAS NEW COMMISSIONER.

Mr. J. H. Fricke of St. Louis has received from the governor of that state the appointment to the office of food and drug commissioner for the state of Missouri, vice Dr. Wm. P. Cutler.

DIGESTION OF FOOD IN HEALTH AND DISEASE.

Dr. Louis J. Tint.

[NOTE.—This is the first installment of a treatise by Dr. Louis J. Tint, bacteriologist to the Illinois State Food Commission, on the "Digestion of Food on Health and Disease." Among the important subjects that Dr. Tint will write upon in the course of this series of articles will be the digestion of food products by healthy and sick people, the influence of predigested food, the effect on digestion of food products containing saccharine, the effect of food products containing boric acid, etc.—Editor.]

INTRODUCTION.

OF all human necessities, food is the most important. The human body may be deprived of many wants except food. The withdrawal of the latter usually means the end of life, and not infrequently unwholesome food prevents a fighting chance to a sick or a convalescent person.

Food is to any living being as fuel is to a steam engine. The success of the latter usually depends upon the quality and quantity of the fuel. So does the prosperity of a nation and the individual depend upon the food supply.

Even the beast of the field that usually lurks patiently for the prey will attack its victims at disadvantages, when driven by hunger. Human beings are frequently compelled, by the pangs of hunger, to do things which they would not do at a time when they are well provided for. The fight for food is, therefore, the economic struggle for existence. It has occupied the attention of the prehistoric man and it is still the great problem of the day.

Carnivorous animals live upon fleshy foods, and herbivorous animals, though using plants exclusively, can maintain themselves for some time on animal diet, when their own is lacking. Human beings can partake of both animal and vegetable food as well.

DIGESTIVE ORGANS.

Vegetables and plants have a large residue of indigestible material known as cellulose. The animals partaking of vegetables, etc., have correspondingly large digestive tracts. As the food is digested slowly, these organs act as reservoirs. Since human beings partake of large quantities of vegetables and cereals, we would suppose that their digestive organs should be larger than those of the carnivorous animals. But this is not the case. Vegetables consumed by human beings have less cellulose and are more concentrable in their nutritive value.

FOOD OF THE PREHISTORIC MAN.

Before discussing the value of food and the method of digestion, it would be interesting to note the several phases of its development and how it kept pace with the history of civilization.

EVOLUTION OF MAN'S DIET.

It is generally believed that the appendix is the vestigial remains of a larger functionating organ of our simian ancestors. If this was a fact, history of man's development would corroborate that the digestive organs should have been also larger, at least that part of the appendix. This would require the primitive man to have been a strictly vegetarian.

On the contrary, the primitive man obtained his food by a hunting and a fishing way. His history dates from the old stone age; the material he used in the manufacture of weapons and tools. These were roughly shaped chipped stones or flint. That he was more progressive than the simian ancestor or the half savage is attested by his method of obtaining food and defending himself against an enemy.

It is known that certain apes of the gorilla type will defend themselves by throwing stones or using branches of trees. But the method of the primitive man was far advanced, and such a process required thousands of years. Though his means of obtaining game differed somewhat from that of the savage or the direct descendants of the simian ancestors (monkeys), yet the method of digestion was the same. As there was no knowledge of fire, there was no cooking. The food obtained by hunting and fishing must have been eaten raw, like the carnivorous animals. Even at our present age, the Esquimo can partake of more animal fat than any other white man.

The primitive man was, therefore, not a vegetarian, but a meat eater. His digestive organs were not larger than those of his descendants of the present age. In fact, the organs should have been smaller.

(To be continued.)

IS THERE REAL DANGER OF FOOD EXHAUSTION?

A SHORT time ago James J. Hill made public statements of his conclusions that grave danger exists that the food supply of this country would not long be adequate to the needs of our rapidly increasing population. Coming from such a source, Mr. Hill's remarks attracted much attention. He based his deductions on Government statistics as he interpreted them, covering a period of years that showed for the decade a great decline of exports in staple cereals and packing house products. At the same time the census reports for those years indicated a large increase of population, and the percentages of changes in the two items tended to indicate that we would soon, should these conditions continue, be obliged to import food for our people.

While we have been assured at all times that "figures won't lie," it must also be acknowledged that the statement is almost as frequently made that "one can prove anything they desire with figures." Certain it is that statistics are elusive quantities for the most part, and one must be very careful to "delve deep" if anything of real value is to be adduced from them.

There are those who contend that Mr. Hill's theory of rapidly approaching food exhaustion is a fallacy, and that his conclusions are not conclusive. One of these Mr. A. W. Douglas, vice president of the Simmons Hardware Co., St. Louis, and he, too, quotes Government statistics in support of his argument. We are inclined to favor the more re-assuring attitude of Mr. Douglas, rather than the discouraging prediction of Mr. Hill. Our readers will find the former's presentation of his side of the question on another page of this number of THE AMERICAN FOOD JOURNAL.

MEETING AGAIN POSTPONED.

A second postponement of the meeting of food officials and inspectors which R. M. Allen, head of the Food and Drug Division of the state university of Kentucky, has called to be held in Lexington, has been made. It is now announced that the meeting will be held April 22 to 24, inclusive.

NO MORE FREE SEEDS.

The American people will have to go down into their pockets and buy seeds wherewith to plant their garden plots this year, for the last Congress cut off the $250,000 appropriation with which it was designed to make the usual purchase of seeds.

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

THE SUCCULENT ASPARAGUS.

AN aristocrat among vegetables, the asparagus claims ancient lineage and age-long favoritism. This delicately flavored and succulent vegetable has an authentic history of many centuries and Cato 150 years before Christ gave a full description of its mode of culture by the Romans, but it was probably well known before that among the Greeks. The young asparagus shoots have been in high repute throughout all these generations as a culinary vegetable being esteemed especially on account of fine flavor and diuretic values.

Asparagus contains a very high per cent of water, but the solid substance of the product is very rich in nitrogenous substances.

While there is a very short time in the spring when some people are fortunate enough to be able to cut asparagus from their own gardens, it is also true that the opportunity is confined to very limited numbers. Most of us must purchase the vegetable either from the market or in cans. Of the two methods the latter is really to be greatly preferred. The reason for the superiority of canned asparagus over so-called fresh asparagus is easily given. Asparagus is one of those vegetables which deteriorates in flavor very rapidly once it is cut. The proportion of volatile flavor is very large. Almost all of the large asparagus canneries are located in close proximity to the fields wherein the vegetable grows, and it is the practically invariable rule for the canning factory to pack the product into the cans as quickly as possible after cutting in the field. A well-operated cannery packs each day's cutting on the same day it is made. Thus the vegetable retains the maximum of flavor, and this flavor cannot escape once it is sealed in the can.

On the other hand, asparagus which is offered for sale "fresh" in the majority of markets is from one to three days old, and being exposed to the air continuously after cutting for that length of time or longer, perhaps, but a small proportion of the natural flavor of the asparagus remains.

While this fact in reference to flavor is so conspicuously true in the case of asparagus, it might be remarked in passing that it is to a greater or less degree true of all fruits and vegetables put up in tins.

Asparagus is a marine plant growing and thriving best near salt water and in a salty soil. To a limited extent it is grown for canning on Long Island and Oyster Bay in the East, and a fine quality is grown in small quantities in Utah near the Great Salt Lake.

At the present time almost all of the asparagus canned in the United States comes from California. The asparagus beds of that state cover large tracts of bottom lands in the delta at the mouths of the Sacramento and San Joaquin rivers. These originally were subject to overflow, are wonderfully rich and enormous crops are raised, the product being of the most superior quality.

No other point in the United States affords such extensive and ideal lands for the culture of asparagus as are found on these river islands and as a result such parts of the country as were at one time engaged in asparagus production for canning, cannot successfully compete with the California growers. These bottom-lands were reclaimed by building levees or dikes and then pumping the water from the land enclosed by the dikes. A peculiarity of the soil when dry is that it will burn if ignited. In times of heavy snow in the mountains which feed the rivers referred to, or excessive rains during the winter, sometimes the levees break and portions of the asparagus beds overflow and the crop of the season may in consequence be lost, but the acreage is very large, one island alone containing 18,000 acres, giving practical assurance of a large crop even if some beds are destroyed.



Courtesy of Libby, McNeill & Libby, Chicago.

"EVERY DETAIL IS THE PERSONIFICATION OF CLEANLINESS."

A few words about the growth of this important plant will be of interest.

Asparagus is started from seed. The seed is taken from the plants the latter part of September and planted the following March about two inches under ground, in rows about twenty inches apart. These rows must be well cultivated during the summer following the planting.

The latter part of November of that year, the roots formed are dug up and left out of the ground about a month. In the meantime the ground is thoroughly plowed and harrowed and struck off into rows about nine feet apart, with furrows about one foot deep between the rows. Then these same roots are planted again, this time about eighteen inches apart in rows about twelve inches deep and left to grow, being well cultivated all summer and not cut over for market purposes. The tops should be permitted to grow and be cut off in January, the ground ridged up and taken care of until spring, when the first cutting from the bed can be made.

This first cutting does not amount to very much and should be of short duration so that the roots may have plenty of time to strengthen themselves before next season.

The second year's cutting will increase quite a little over the first, but again the season of cutting should be short so as to insure the roots gathering plenty of strength and thus prepare themselves for heavier cutting the third year. In other words, the bed does not yield very heavily until the third cutting season, which is five years from the time the first work towards planting is done.



A FIELD OF YOUNG GROWING ASPARAGUS.

The quality of the asparagus is regulated to a very large extent by the amount of care given the beds during the first three years of their existence. It involves a very heavy expenditure, and an endless amount of patience and painstaking work.

In the fall previous to the spring's cutting, the plants are cut, the tops serving as a mulch. The earth is banked over the rows of the depth of a foot or more. In the spring the stalks come through this light soil and mulch and are practically bleached.

The following description of procedure in gathering the asparagus and canning it is by A. W. Bitting, food technologist of the Bureau of Chemistry, United States Department of Agriculture:

"The stalks are cut every day or every other day, the stalks being selected just as they appear through the ground. The work of cutting must all be done by hand by means of a long chisel-like knife, and is very laborious. The object is to cut the stalk back seven inches or more. The asparagus is collected in hampers or crates and hauled promptly to the cannery. It is essential that the work be done promptly to insure a crisp article. A delay will cause a fine product to become tough and stringy. At the factory the first operation is to turn the crate upon a sorting table, where the stalks are sorted into five grades, based on size, also into two qualities, dependent upon whether the stalks are wholly blanched or partially green. A further sorting is made, dependent upon whether the stems are straight or crooked. All the sorting is done by hand. The five grades for size are known as giant, mammoth, large, medium and small, and these are based upon the number of stalks which will go into a standard No. 2½ square can. With giant stalks about 14 are required; mammoth, 20 to 22; large, 30 to 33; medium, 40, and small, 50. What are known as asparagus tips are put up in cans just one-half the regular size, and about 30 per cent more stalks are required to fill the can. What are known as hotel tips are the cuttings made in trimming the asparagus to size, and the whole stalks which are crooked or deformed. The quality of these is just as good as the other, though not so pleasing in appearance. Some of the large asparagus is peeled, or stripped, as the operation is more properly called.

"After the grading the tips or stalks are cut in lengths to fit the can, and then thoroughly washed in cold water. They are next blanched in wire baskets, the stalks being held in position so that they will not move about. The length of the blanch depends upon the condition of the stalks, being a mere dip in hot water in some cases, and as long as three minutes in case of advanced growth. On coming out of the blanch they are dipped in or sprayed with cold water to prevent softening, after which the cans are filled immediately. A light brine is used to fill the interspaces, the can exhausted, the cap placed on, and a process of 240 degrees Fahrenheit given for twelve minutes. The cans must be well cooled at once.

"A great deal of fancy is shown by the consuming public in buying asparagus. The absolutely white is demanded and brings a premium of from 25 to 50 per cent in the market. The green is just as good and in many instances better, though it does not look quite as attractive, and the liquor is likely to have a more or less cloudy appearance, due in part to the breaking of tips and side buds."

Every detail connected with the handling of asparagus is the very personification of cleanliness; in fact, to visit a cannery when it is in active operation is to satisfy one that nothing could be more wholesome, more sanitary or more hygienic in every respect than asparagus when handled in this way.

Relative Economy of the Various Cuts of Beef

UNDER the head of "Relative Economy, Composition and Nutritive Value of the Various Cuts of Beef" the Illinois State Board of Health has issued a bulletin under date of September which contains much valuable data on this interesting and important subject. This bulletin is too long to permit of our publishing it in full, but we have extracted some of its most valuable sections and publish them herewith. In the introduction to the publication it is stated:

"While there is a regretable tendency to eat too much meat, meat will always be a staple article of diet, in our country at least, and as such we must accept it. Fish may be used for a substitute for a time; eggs may take its place, but we soon tire of them; cheese has its value; fruits, cereals and vegetables form a part of a well selected dietary, but meat is what man wants, and his longing for what has been aptly called 'the stimulating scent peculiar to the flesh or vertebrate animals' will invariably get the best of him, and meat he will have if it lies within the length of his purse-strings.

"The craving is natural. Meat makes rich blood, and, as pointed out by Dr. Gilman Thompson, than whom there is no

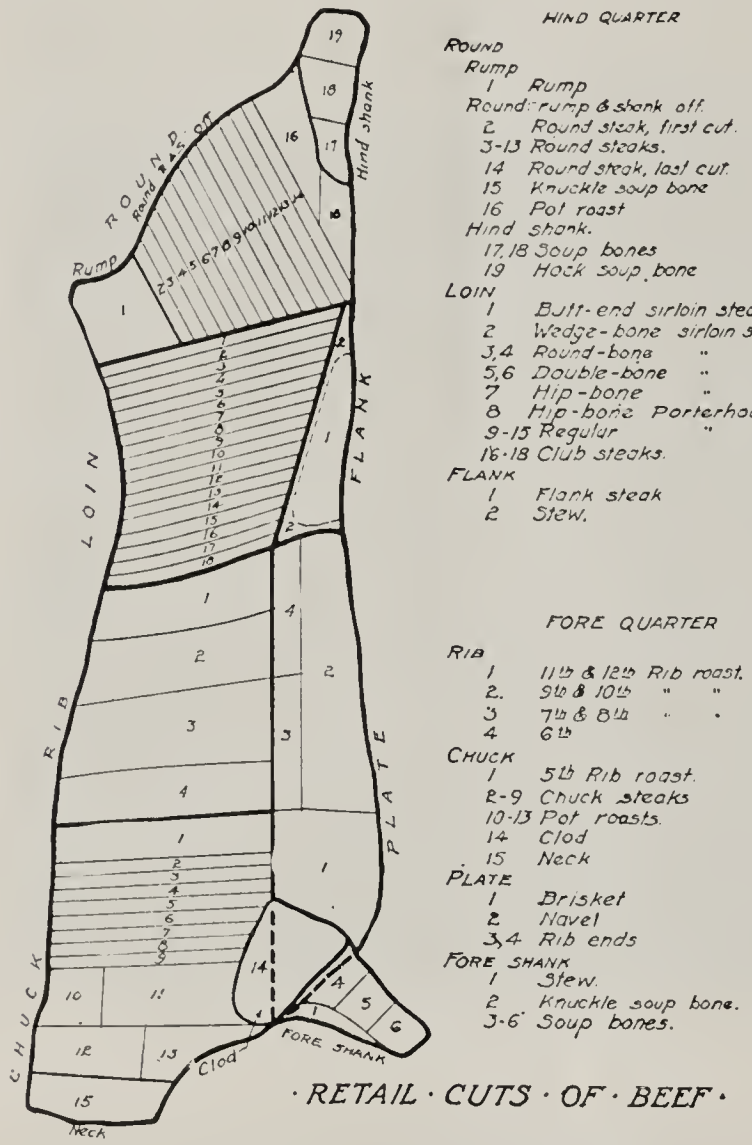


FIG. 12. Method of Cutting the Three sides, Showing Retail Cuts.

greater authority on dietetics, 'it increases the mineral salts, particularly the phosphates; it both repairs the old and forms the new tissue, it improves the condition of the muscles, which are made firmer; it has a more stimulating effect upon the system and is more strengthening than vegetable food, which requires man to live on his own tissues; it gives rise to sensations of energy and activity; it satisfies the cravings of hunger to a greater extent and for a longer time than vegetable food, and occupies less space in the stomach and is more portable than vegetable food.' It is true, moreover, that albuminous foods can be eaten longer alone without exciting loathing than can fats, sugars or even pure starches. * * *

"As meat forms so important a part of man's dietary, its relative economy, composition, and, last but by no means least, the nutritive value of the different portions, must become of material consequence to all who consume it, and especially to the housewife upon whose shoulders falls the responsibility of providing food which is appetizing as well as nutritious."

The original source of the material contained in the bulletin was Bulletin No. 158, Agricultural Experiment Station of Illinois, compiled by L. D. Hall, assistant chief in animal husbandry, and A. D. Emmett, assistant chief in animal nutrition. The illustration herewith is reproduced from the report, as well as the following:

RELATIVE ECONOMY OF THE VARIOUS RETAIL CUTS.

"From the proportions of lean, fat and bone in the different cuts, their relative economy at retail market prices may be determined. The net cost of lean meat is an approximate index of the relative economy of steaks and roasts, since they are purchased and used primarily for the lean they contain; but in comparing boiling, stewing, and similar meats, the cost of gross meat, or fat and lean combined, should be more largely considered, because the fat is more completely utilized, as in the case of meat loaf, hash, hamburger and corned beef. Soup bones, being valued for flavoring matter as well as for the nutritive substance they contain, are more difficult to compare with other cuts in respect to relative economy. They vary materially, however, in proportions of edible meat and waste, and should therefore be studied in this connection.

"The relative cost of lean meat in a given cut consists of the price per pound paid for the cut divided by the percentage of lean it contains; and, similarly, the cost per pound of gross meat is the market price of the cut divided by its total percentage of lean and fat meat. For example, in a steak costing 20 cents per pound and composed of 80 per cent lean, 10 per cent visible fat and 10 per cent bone, the net cost per pound of lean is 20 cents ÷ .80, or 25 cents, and the net cost per pound of total meat is 20 cents ÷ .90 (.80 + .10), or 22.2 cents.

"Retail prices of beef cuts vary widely, depending upon market prices of live cattle and carcass beef; also upon the method of cutting and trimming used, and upon local customs and conditions. Consequently, the relative economy of the different cuts varies accordingly and cannot, therefore, be expressed in fixed terms. The following table is based upon prices charged for the highest grade of beef cuts in first-class city meat markets. Although it fairly represents the relative net cost of the retail cuts under the conditions stated, the table is designed primarily to illustrate the method by which the relative economy of different cuts may be calculated for any given scale of prices.

TABLE 19—*Cost of lean and of total meat in the various retail cuts at market prices.*

Retail cuts.	Diagram number (Fig. 12).	Retail price per lb. of cut, cents.	Cost per lb. of lean meat in cut, cents.	Cost per lb. of lean and fat meat in cut, cents.
Steaks—				
Porterhouse, hip-bone...	8	25	38.6	28.9
Porterhouse, regular....	10	25	40.2	27.2
Club steak	18	20	32.1	22.6
Sirloin, butt-end.....	1	20	25.3	20.6
Sirloin, round-bone	3	20	28.3	21.1
Sirloin, double-bone.....	5	20	28.7	22.7
Sirloin, hip-bone.....	7	20	32.3	24.2
Flank steak.....	1	16	19.3	16.0
Round, first cut.....	2	15	17.0	15.3
Round, middle cut.....	6	15	17.3	15.6
Round, last cut.....	14	15	19.3	16.0
Chuck, first cut.....	2	12	18.3	14.1
Chuck, last cut.....	9	12	15.7	13.1
Roasts—				
Prime ribs, first cut.....	1	20	40.5	22.9
Prime ribs, last cut.....	4	16	26.1	18.8
Chuck, 5th rib.....	1	15	22.8	17.3
Rump	1	12	19.4	12.8
Boiling and stewing pieces—				
Round pot roast.....	16	10	11.6	10.1
Shoulder clod	14	10	12.3	10.5
Shoulder pot roast.....	11	10	14.3	11.6
Rib ends	3	8	16.2	9.2
Brisket	1	8	15.0	8.7
Navel	2	7	12.8	7.7
Flank stew	2	7	10.9	7.1
Fore shank stew.....	1	7	8.5	7.0
Neck	15	6	8.5	7.0
Soup bones—				
Round, knuckle.....	2	5	26.3	12.5
Hind shank, middle cut.	18	5	7.5	6.3
Hind shank, hock.....	19	5	62.5	26.6
Fore shank, knuckle.....	2	5	17.2	12.5
Fore shank, middle cut.	4	5	12.5	9.4
Fore shank, end.....	6	5	28.8	20.9

"Taking the net cost of the lean meat as a basis of comparison, we learn from these data that the most expensive

steaks at the prices given are the porterhouse cuts, followed by the club, sirloin, flank, round, and chuck steaks. Of the different roasts, the first-cut prime ribs are the most costly in terms of lean meat, and the rump roast is the most economical. The various boiling and stewing pieces furnish lean meat more economically at market prices than either the roasts or steaks; the rib ends and brisket being the dearer cuts of this class, while the neck and shank stews are relatively cheapest. Several of the soup bones are very economical sources of lean meat, particularly the middle cuts of both shanks; and only one of them is extremely expensive, even on this basis. In general, the wide variation between the various cuts in net cost of lean is remarkable, ranging from 7.5 cents in one of the soup bones to 40.5 cents in a prime rib roast, and up to 62.5 cents in the hock soup bone, the latter, however, being used primarily for its flavoring substance rather than for lean meat. It will be observed, also, that the market prices of the cheaper cuts correspond much more closely to their net cost of lean meat than is true of the higher-priced steaks and roasts.

"The net cost per pound of gross meat, or lean and fat combined, varies much less as between the different cuts than does the net cost per pound of lean, because the proportions of total meat are more nearly uniform than the percentages of lean. The various steaks and roasts rank in substantially the same order as to relative economy on this basis as on the basis of lean meat. The rib roasts, however, are considerably more economical as compared with the porterhouse and sirloin steaks when all the edible meat is considered. The rump shows a very low cost per pound of edible meat, due to the large proportion of fat it contains; and a still further difference is noticed in the case of the rib ends, brisket, navel, flank, neck, and several of the soup-bone cuts. The stewing meats are generally the most economical sources of edible meat at these prices, while porterhouse steaks are the most expensive.

"On the whole, the data clearly show that the cheaper cuts of beef are by far the most economical sources of both lean and of total edible meat, including fat and lean. It has been shown elsewhere that no correlation exists between market prices and the proportion of flavoring substances contained in various portions of the carcass; and cooking tests indicate that the proportion of waste and shrinkage is not necessarily greater in the cheaper than in the more expensive cuts.[1] It is evident, therefore, that retail prices of beef cuts are determined chiefly by considerations other than their food value, such as tenderness, grain, color, general appearance, and convenience of cooking.

"In view of these facts, Table 19 constitutes a striking illustration of the irrational standards which characterize the demand for beef, and of the consequent wide variation in prices between retail beef cuts from different portions of the carcass. A careful study of these data, together with Fig. 12, will enable the reader to purchase the various retail cuts of choice beef with respect to the relative amounts of edible meat and waste they contain, and thus to profit by the prevailing discrepancies in market prices.

"The relative efficiency of different types of cattle or systems of production cannot be accurately compared without considering the adaptability of the beef to the purpose for which it is used.

"Those who would buy meats most intelligently must know the nature of the different cuts, especially with reference to the proportions of lean meat, fat, and bone they contain and the food value of edible meat cut from different parts of the carcass.

"It is highly essential to the entire beef-cattle industry, on the one hand, and the economic welfare of the beef-eating public, on the other, that a more intelligent understanding of the different cuts of meat be acquired by consumers generally."

[1]Bulletin 162, U. S. Dept. Agr., O. E. S. (1903), by Grindley and Emmett.

FOOD VALUE OF CHOCOLATE.

Chocolate when well made is declared to be a good sustaining food, a sweetmeat and a stimulant. It contains a large amount of sugar, nearly as much fat, about 2 or 3 per cent mineral matter and a very small amount of theobromine. On account of its staying powers and nutritive properties it has been largely used for army food when maneuvers are being made and in other cases calling for exceptional demands on the muscular, nervous and mental energies, such as expeditions into the polar regions.

ABOUT EGG SUBSTITUTES.

Recently the Michigan State Dairy and Food Department isued a bulletin showing the composition of a certain "Egg Substitute" to be baking powder, starch and analine dye. Since that time, the department has asked several housewives as to the efficacy of such a substitute. These ladies say that it is a common practice of housewives in the making of cakes or custard pies, in the case of the scarcity of eggs, starch is added. While not being equal to eggs, starch has a tendency to lighten up the cake or the pie. It is upon this old and well known principle that housewives have practiced for years that the so-called egg substitutes are being placed on the market.

One of these substitutes, a sample of which was sent from Bay City, Mich., is named "Egg Save." On analysis, this substitute was found to contain 80 per cent starch, 2 per cent casein and 18 per cent water, colored with a yellow coal tar dye.

Another egg substitute called "Soluble Food Product" submitted from Detroit for analysis, was found to be a mixture of 79 per cent starch, 16 per cent casein and 5 per cent water, colored with a coal tar dye. Casein is the curd of milk which has been dried and prepared for food use. Whether this addition is of any value we are unable to say, but the large percentage of starch found in all of these compounds shows that the egg substitute people are simply utilizing the old housewives' plan of using starch instead of eggs and by advertising the mixture as an egg substitute they are able to sell the consumer starch at a high price.

PEANUT SOUPS.

Considered from a nutritive standpoint the common peanut has a value which few people seem to realize. Yet it is worth while to take this nut into consideration, and the fact that it is cheap should be a further recommendation.

The freshly shelled peanut is always best for cooking purposes, because this product, which is really allied to the bean family, is so heavy in oil. Shelled peanuts should be kept in glass or oiled paper bags and in a cool place. If the oil exudes and is exposed to the air it becomes rancid and therefore unwholesome.

Peanut soups may be a novelty on many tables, but they are easily prepared, being, in fact, usually only a good white sauce, flavored highly with peanuts. The following two recipes are recommended as both nutritious and palatable by one who has tried them:

PEANUT SOUP NO. 1.

One cup of peanuts, roasted, shelled, skins removed and pounded to a paste; one-half a teaspoon salt, one-eighth of a teaspoon of pepper, one pint of milk, one tablespoon flour, one tablespoon of butter. Add peanuts to the milk and scald. Melt the butter, add flour and seasoning; then slowly add scalded milk and peanuts. Cook until it thickens.

PEANUT SOUP NO. 2.

Put a pint of milk in a double boiler, add four tablespoons of peanut butter, half a small onion grated, two sticks of finely chopped celery, salt and paprika. Cook for 20 minutes. Moisten a half teaspoon of cornstarch with a little cold milk, add to the hot soup and stir until thick.

BY-PRODUCTS FROM LEMONS.

Herbert S. Bailey of the Bureau of Chemistry at Washington has announced that frozen and disfigured lemons can be made valuable for their by-products. Mr. Bailey has equipped a laboratory in Los Angeles in which from unmarketable lemons the government experts have derived lemon oil, citrate of lime and citric acid. The lemon peel supplied the oil and the citric acid, and citrate of lime was extracted from the juice. For these products there is an excellent market. Similar results can be obtained from oranges, Mr. Bailey claims, and a series of experiments have been commenced to determine the commercial usefulness of the process. From observations of conditions in the citrus belt, Mr. Bailey and his assistant are convinced that by-products factories should be established by the citrus growers. For an outlay of $10,000, he says, a factory which would handle fifty tons of lemons or oranges a day could be established.

COST OF DELIVERING A QUART OF MILK.

As estimated by a firm in Boston, the cost of delivering a quart of milk to the consumer was 4.4 cents, to which must be added 0.37 cent for shrinkage. The average price paid to the producer for one year was 3.9 cents per quart, making a net cost per quart when delivered to the consumer of 8.67 cents.

Tested Recipes for Canned Foods

By Miss Lucille Reynolds, Teacher of Domestic Science, La Crosse, Wisconsin, School of Agriculture and Domestic Science.

THESE recipes are all tried and true and will bring delicious results every time if directions are followed:

CORN SOUP.

One can corn; 1 pint boiling water; 1 pint milk; 1 slice onion; 2 tablespoons butter· 2 tablespoons flour; 1 teaspoon salt; few grains pepper.

Chop the corn, add water, and simmer twenty minutes, rub through a sieve. Scald milk with onion, remove onion, and add milk to corn. Bind with butter and flour cooked together. Add salt and pepper.

GREEN CORN FRITTERS.

One can corn pulp chopped fine; 1 egg beaten until light, ¼ cup flour, ¼ teaspoon salt, ⅛ teaspoon pepper, ¼ teaspoon baking powder.

Method: Mix dry ingredients and sift together once. Combine the egg and the corn and add the liquid mixture to the dry. It may be necessary to add a little more flour as they should be a little thicker than cake. Drop by spoonfuls in deep hot fat and cook as doughnuts or cook until fritters are done throughout and are a deep golden brown in color. Drain and serve hot with brown sugar or maple sugar syrup. May serve with cheese sauce.

Cheese sauce: Thick white sauce to which paprika and grated cheese are added.

move onion and add milk to pea mixture, season with salt and pepper, celery salt and paprika. Serve hot.

GLAZED CARROTS WITH PEAS.

Three medium sized carrots, wash, scrape and cut in cubes or fancy shapes, parboil 15 minutes, then drain. One-fourth cup butter, two tablespoons sugar, 1 tablespoon finely chopped fresh mint leaves, added to carrots. Cook slowly until glazed and tender. One can peas heated in liquor for five minutes, then drained and seasoned with butter, salt and pepper.

Mound cheese on hot dish and surround with glazed carrots. May combine peas and carrots before placing on serving dish.

CREAMED PEAS AND SALMON.

(Good to serve for supper. Serve on buttered toast or on crisp wafers.) Make a white sauce, using proportions of:

Two tablespoons butter, 2 tablespoons flour, 1 cup milk. Melt butter, add flour, and when well blended and smooth add the milk gradually and cook until smooth.

Flake ½ cup canned salmon, add to it 1 tablespoon lemon juice, and let stand while making sauce, then add to sauce with ½ cup canned peas drained from liquor. Season highly.

OLD COUNTRY GREEN SALAD.

One cup sifted peas, ½ cup hickory or walnut meats, 1 cup diced celery.

Method: Toss ingredients together lightly, using forks, add salad dressing and pile on lettuce leaf. May substitute sweet cucumber pickles cut in cubes for the celery.



SPINACH CROQUETTES.



MOLD OF VEAL.

CORN A LA SOUTHERN.

One can or 2½ cups corn; 3 eggs beaten slightly; 1 teaspoon salt, dash pepper, 1 tablespoon butter melted, 1 pint scalded milk.

Method: Mix all together, turn into buttered baking dish, set in pan of boiling water and bake in slow oven until tender.

SCALLOPED CORN.

One can corn, two tablespoons butter, 1 cup rich milk, 1 teaspoon salt, dash of pepper, 1 cup bread crumbs buttered.

Method: Melt 2 tablespoons butter in frying pan. Add dry crumbs, stir until all are coated. Grease baking dish, put in layer buttered crumbs and add corn and milk and seasoning. Sprinkle buttered crumbs over top and bake in moderately hot oven until crumbs are brown.

PEA SOUFFLE.

Rub 1 can of peas through a strainer and add enough milk to make one pint in all. Cook together two tablespoons each of butter and flour, and add gradually the sifted peas and milk. Season with salt and pepper and sugar and onion juice if desired. Add the well beaten whites of two eggs, pour into buttered molds and steam or bake in a pan of water until firm in the center. Turn out of the molds before serving. Serve as a vegetable with meat and potatoes.

PEA SOUP.

One can June peas, 2 teaspoons sugar, ½ cup cold water, 1 pint milk, 1 slice onion, 2 tablespoons butter, 2 tablespoons flour, 1 teaspoon salt, ⅛ teaspoon pepper. Method: Cook peas in their liquor, adding sugar and the cold water, simmer twenty minutes. Rub through a sieve, reheat, and thicken with butter and flour cooked together. Scald milk with onion, re-

POTATO PUFF WITH PEAS.

Two cups cold riced potatoes, 2 eggs—whites and yolks beaten separately—½ cup milk or cream, ½ cup canned peas, seasoning, ¼-½ cup grated cheese if desired, 2 tablespoons butter, less if cheese is used.

Method: Mix all together, folding in stiffly beaten whites last. Bake in greased baking dish until golden brown on top.

ILLUSTRATED DISHES.

SPINACH CROQUETTES.

Carefully wash spinach, chop it fine and put it in a porcelain saucepan with some butter, a little marjoram, parsley, salt and pepper to taste, the grated rind of half a lemon, and a spoonful of sugar. Place the saucepan on the fire, add a cupful of milk and cook slowly until all the milk is absorbed. When the spinach is somewhat cooled add two lightly beaten eggs. Stir all well together, then flour the hands and shape into croquettes, dipping them in beaten white of egg and rolled bread crumbs. Drop into boiling fat and fry a light brown. Dust with pepper and salt and serve.

LOAF OF VEAL.

Take 3 pounds of veal, ½ pound of salt pork chopped fine, 1 dozen crackers rolled fine, 2 eggs, 1 tablespoon of tomato catsup, ½ cupful cream, salt and pepper. Whip a cupful of cooked rice and line with it a buttered mold. Fill the mold with veal and bake slowly in the oven. Garnish with tomato marmalade.

Ways for Cooking Asparagus



ASPARAGUS WITH MAYONNAISE DRESSING.

ASPARAGUS may be served in a variety of ways, and for any recipe combining it with other ingredients the canned article is in every respect as satisfactory as the fresh. Many prefer this vegetable nearly natural as it can be prepared and deem it most delicate when served merely with drawn butter or mayonnaise dressing. A platter of big white asparagus stalks accompanied with a dish of mayonnaise dressing certainly adds to the attractiveness of any table. Among the many methods of preparing this vegetable the following are recommended:

ASPARAGUS WITH EGGS.

Salt and pepper well one can of asparagus. Beat four eggs just enough to break up the yolks, add a tablespoonful of melted butter; pepper and salt, and pour upon the asparagus. Bake eight minutes in a quick oven and serve immediately.

ASPARAGUS LOAF.

Cut one can of asparagus into small pieces, mix with a thick cream dressing, pack in a baking dish and brown in the oven.

ASPARAGUS OMELETTE.

Cut off the tips from one can of asparagus and place in melted butter until ready. Beat three eggs, add three tablespoonfuls of sweet milk and beat again, adding a pinch of salt. On a medium-sized frying pan place a piece of greased paper the size of the pan. Use dripping for this purpose, as it does not burn so readily as butter. Pour half of the beaten eggs into the pan, and when the eggs are set sprinkle the asparagus tips across the center, roll into an omelette and turn into a plate. Treat the remainder of the eggs and tips in the same way.

ASPARAGUS IN AMBUSH.

Chop fine and season one can of asparagus. Scrape out the inside of eight or nine rolls, cutting off the tops to serve as covers. Set open in the oven to crisp. Pour four beaten eggs into two cupfuls of milk. Stir over the fire until it thickens. then add one spoonful of butter rolled in flour. In this mixture stir the chopped asparagus, fill the rolls, put on the tops. and serve hot.

ASPARAGUS SALAD.

Cut asparagus into short lengths. Arrange these pieces in a salad dish, lay rings of hard-boiled egg over it, and garnish with hard-boiled yolks of eggs, unbroken, around the base. Serve with salad dressing.

ASPARAGUS JUMBLES.

Spread a medium boiled egg on a piece of buttered toast. On this put a layer of asparagus, cut in small pieces and covered with a thick cream sauce. Top off with will pickles, and season the whole to suit the taste.



GATHERING ASPARAGUS FROM THE FIELD.

ASPARAGUS PUDDING.

Beat together four eggs, one tablespoonful of butter, and pepper and salt to suit the taste. Add three tablespoonfuls of flour mixed with one-third teaspoonful of baking powder. Wet with a scant cupful of milk, and finally add the chopped contents of one can of asparagus. Pack in a well-greased mold with a top, plunge into boiling water and allow it to cook for two hours. Turn out of the mold and serve with drawn butter poured over it.

ASPARAGUS FRITTERS.

Make a batter with two beaten eggs, a tablespoon butter, one cup of flour, a little baking powder and salt, and enough milk to make a drop batter. Add cold cooked asparagus, cut in small pieces, to the batter, and fry in deep fat.

CREAMED ASPARAGUS ON TOAST.

Melt two tablespoons butter, add one of flour, stir smooth, add salt, white pepper and celery salt to season, and one pint of milk. Stir until it thickens, and add an equal amount of cooked asparagus cut into bits. Spread over thin slices of freshly toasted bread and serve at once.

ASPARAGUS PATTIES.

Cut a quart of cooked asparagus into small pieces. Add a white sauce made with two tablespoons butter, one of flour, one-half teaspoon salt, pinch of white pepper and one cup of milk. Cut two slices of bread, remove the crusts and scoop out the centers. Toast a light brown over the coals or in the oven, fill with asparagus and serve hot. Or prepare cases by lining deep gem or patty pans with a rather short crust, cutting lids of crust for the top and baking on a separate pan. When both are baked. fill with the hot asparagus, lay on the lids, and serve immediately.

BAKED ASPARAGUS.

Cut asparagus into small pieces. Take two cups each of asparagus and bread crumbs, two tablespoonfuls of butter, one cup of milk, one-half teaspoonful of salt and three or four dashes of pepper. Dust a well buttered mold lightly with the crumbs, then arrange the asparagus and crumbs in alternate layers, dusting each with salt and pepper, and dotting with little bits of butter. Have the last layer of crumbs, pour over the milk, and bake in a moderate oven.

ASPARAGUS BALLS.

Chop very fine one cupful of cold cooked asparagus, mix it with one-half cupful of fine bread crumbs, one tablespoonful of melted butter, dill pickles, and season the salt and pepper to taste, and the well beaten yolk of two eggs. Form into balls, coat thickly with bread crumbs, and fry in hot fat.

Fallacy of Theory of Food Exhaustion

By A. W. Douglas, Vice-President Simmons Hardware Co., St. Louis.

WHOLESOME food, that is both cheap and abundant, is one of the accompaniments and requisites of the high national types of modern civilization. We hear much of the frugality and abstemious habits of Eastern people, and of the peasants of Europe, as indicative of their primitive simplicity and virtues, but when the truth is known these are often mere euphemisms for poverty, ignorance and arrested development. A large portion of the teeming hordes of India live always close to the ragged edge of starvation, with the inevitable result of anemic bodies, unable to resist disease and pestilence, and with patient, submissive wills that for centuries have bowed their necks to alien conquerors. Despite the rage for food fads, that prevails mostly in countries of plenty, and of philosophies of ascetic self-denial, the fact remains that scantiness of diet in a people is never of choice, but always a matter of dire necessity. The highest forms of mental and material results are usually the products of a well nourished race. There is therefore a note of alarm in the recent statement by high authority that we are fast approaching the stage when we will not only consume all of our own food products, but will be a food importing nation.

This idea has found wide acceptance, though it seems to add one more pang to the already high cost of living, and to sound the knell of the pleasure and health giving of that abundance and variety of food that has been so marked a feature of American life. There is no reason to believe that it is other than a false alarm, and is in itself a striking instance of the danger of half truths, and of hasty generalizations founded upon the superficial study of mere statistics without any actual knowledge of all the conditions involved. The statement is based upon the decrease during recent years of our exports in staple cereals and packing house products, and upon the census returns of 1910 which seem to indicate that our population is growing faster than the means of subsistence, or the old Malthusian doctrine in a new guise. The decade from 1899 to 1909 is taken for purposes of comparison, and the initial mistake is made of comparing the two years 1899 and 1909 instead of taking the average of production during that time and comparing it with each individual year, since everyone familiar with agricultural statistics knows that, owing largely to weather influences, the difference in production between a good year and a bad year is sometimes very startling. If for instance the decade chosen had been from 1894 to 1904, an entirely different result would have been apparent since 1894 was a very poor year in cereals, especially in corn, while 1904 was a season of fairly average yields.

RELATIVE INCREASE IN POPULATION AND CEREALS.

It is shown that in the decade of 1899 to 1909 population in the United States increased 21 per cent, while the yield of cereals in 1909 was as a whole only 1.7 per cent greater than in 1899. If this were the whole story it would certainly be an alarming prospect, but as we shall see it is a mere misinterpretation of figures, with many essential facts omitted. It happens that 1909 was a poor year for corn, and in fact as compared with 1899 showed a decrease of 114,000,000 bushels, while all other cereal yields in 1909 showed increases over 1899 running all the way from 3 to 142 per cent, but as corn was much the largest factor, it pulled down the whole proposition to only a small net increase. Speaking from the standpoint of food value, which is the crux of the whole discussion, corn enters less directly as a factor than does wheat, since almost all of the wheat is used as human food, while corn takes this form mostly in the shape of live stock. To show the entire fallacy of this reasoning let us compare the yields of 1912 with those of 1899 to illustrate how easily the reverse statement can be proved.

	1899.	1912.	Increase, Pct.
Corn, bus	2,666,324,370	3,169,137,000	18¾
Wheat, bus	658,534,252	730,267,000	18
Oats, bus	943,389,375	1,418,337,000	53
Rye, bus	25,568,625	35,664,000	39

Meanwhile rice increased in 1909 over 1899 about 142 per cent and Kaffir corn during the same period 240 per cent, and the acreage and production in both of these cereals grow steadily year by year. The oat crop has grown steadily in value for human food, and this is largely a development of recent years. Consequently if there were no increase in the oat crop it would have much greater food value than formerly because of its greater use in that regard.

Most important of all are the new and important factors in this problem which are entirely overlooked by the alarmists, namely, potatoes, fruit, vegetables and nuts of all kinds, in all of which there has been enormously increased production within the past decade and consequently correspondingly increased value as food products. They have in many ways both supplemented and supplanted the cereals as food, and are themselves one of the principal reasons why we do not raise any more wheat than we did twenty years ago, namely, because they have been found more profitable to the farmer and equally valuable and palatable as food. Few things have greater food value than potatoes, because of their nutrition and comparative cheapness as compared with most foods. It can be truly said of Irish potatoes at present that they divide with bread the honor of being the staff of life. Accurate and complete statistics are wanting, save in a few of these products, but some scattered figures will serve to show the great and increasing extent of these industries:

	1899.	1912.	Inc.
Irish potatoes, bus	273,318,167	414,289,000	51%
	1899	1909.	
Sweet potatoes, bus	42,517,412	59,232,070	39%

The production of fruit within the past ten years has assumed an enormous commercial importance, as its health and pleasure giving value is more and more appreciated. Citrus fruits—oranges, lemons and grape fruit—are the principal industries of almost the entire Florida peninsula, and of more than half of California, and their output totals something like $75,000,000 per annum and the story constantly grows. There seems no appreciable limit to the demand for them, and it must always be borne in mind in this connection that as fruit gets cheaper it commands a wider and wider market. Apples rank next to oranges in dollars and cents value, and in some sections of the country, notably in the Hood River, Wenatchee and North Yakima districts of Oregon and Washington, in the northwest Ozark regions of Arkansas, nearly all over the state of Missouri, in Colorado, in Utah, in Wisconsin in Michigan and Ohio, and in western New York, they form in many instances the principal revenue of the people. The export of them grows steadily, and the consumption increases each year. Their production has grown considerably during the last ten years, and the output in 1912 will be something like 50,000,000 barrels. This will approximately represent something like $125,000,000 to the growers.

PEACHES ARE AMONG THE DEVELOPMENT OF LATE YEARS.

Peaches are also among the development of late years, and are grown extensively in Arkansas, in Missouri, in Texas, in Alabama, in Georgia, in portions of Oklahoma and Kansas, in Delaware and Maryland, and in scattered sections all over the Union. They have found their greatest production in the Southern states. In 1912 Texas shipped over 10,000 car loads of peaches and Arkansas about 4,000 car loads to Northern markets, while south Georgia treaded close upon their heels with an output of over 5,000 car loads, and southern Alabama is likewise doing an extensive business in this regard. The Rocky Ford melons of Colorado are a growing development within easy memory, while Arkansas and Alabama are likewise raising them in great quantities. Grapes have been grown for quite a number of years successfully and profitably in northern Ohio and western New York, but of late years California has come to the front with a tremendous production, many of them assuming more permanent food value as raisins. This is the story also of the prunes of southern California, and the beginning of the raising of the date palm in southern Arizona and New Mexico. Pears are growing in importance, and especially in their canned shape. The output of small fruit, notably strawberries, now runs into millions of dollars. The five southwestern counties of Missouri ship annually $500,000 worth of them, while the Fruit Growers' Association of eastern North Carolina has an annual output of $800,000. To such an extent has the raising of fruit for commercial purposes grown within recent years that the growers have associated themselves into great business organizations, not only raising, but shipping and marketing their own products.

In harmony and coincident with it in growth is the output of vegetables in the way of truck gardening. These industries have extensive investments in Arkansas and in southern Ala-

bama, especially around Mobile, in the eastern districts of South Carolina in the neighborhood of Charleston, all through eastern North Carolina and in eastern Virginia, around Norfolk, and to a very great extent in southern California, and especially of late in southern Texas. There are hundreds of thousands of acres in Texas that until lately were covered with chaparral thickets which had no especial value, because of lack of water. Irrigation, by means of water from the rivers and of sunken artesian wells, has transformed the whole region, and there has suddenly come into being probably the largest truck gardening region in the world, south of San Antonio and Houston, and especially in the Brownsville district along the Rio Grande. The production of onions, tomatoes and vegetables of all kinds is on a great and constantly increasing scale. Last year this section alone shipped $3,000,000 worth of Bermuda onions, all the development of the past few years. Truck gardening is more and more attracting the attention of the farmer because of the almost illimitable demand for its products and the profit they bear when marketed with care and intelligence. As with fruit, the enormous output has brought down the price, which has further stimulated the demand, and the cry of the great cities is more and more for cheap, wholesome vegetables, in season and out. Peanuts are largely thought of as things of exceeding cheapness and of small importance, and yet the value of this industry is something like $7,000,000. Most of this product comes from eastern Virginia and North Carolina. Throughout southern Texas, southern Alabama and southern Georgia there is going on the wholesale planting of pecans and on a very great scale. The nut industry in California has proved a great source of revenue to that state, and it is only a question of a short time when we shall entirely cease importing any nuts that can be profitably grown in this country.

FALLACY THAT THE LAND IS BECOMING IMPOVERISHED.

As to that other fallacy that the land is becoming impoverished by constant and unintelligent cultivation, it can be dismissed with the brief statement that the official government figures indicate a slow but steady improvement in the right direction, and innumerable state and government experiment stations, and intelligent farmers all over the country, have demonstrated clearly the ability of scientific and intensified farming to produce crops at a greater rate of increase than any increase in population. It is entirely within the possibilities of this system to economically and practically increase the present yields of all crops from 100 to 200 per cent per acre. The statement of these facts should be sufficient answer to any fear as to a proportionate decrease in our food products, with but a passing glance at two other great and increasing sources, dairy farming and the poultry industry. Dairy farming is seen to be one of the most profitable of all the pursuits of husbandry, and is fast spreading over the country, even in the South, where it was formerly almost unknown. The most reliable estimates of the poultry products place their value at about $750,000,000, or more than any of the great staple crops save corn and cotton. It is largely a story of recent years and one instance will suffice to show its growth. The receipts of eggs in 1900 at seven large representative cities were 7,898,681 cases (30 dozen in a case), as against in 1911 14,266,640 cases, or an increase of 80 per cent. If therefore we care to survey the field in sober truth, rather than in a Cassandra-like spirit of prophecy, the outlook seems to be for greater variety, increasing abundance, and reasonable prices of food for the people.—*Journal of Commerce.*

Letter From Indiana

From a Staff Correspondent.

Indianapolis, March 12.—For the first time in years the Indiana legislature adjourned a day or two ago without having passed a great number of bills relating to food subjects.

The Spencer weights and measures law amendment and the Ratts bill, providing for the immediate cleansing of milk, cream and ice cream containers as soon as they are emptied were practically the only measures materially affecting pure food interests in Indiana.

The Spencer amendment to the existing weights and measures law materially improved the Act of 1911. That act was the first of its kind passed in Indiana and it provided that county commissioners might appoint inspectors of weights and measures if they so desired. Several cities of the state already had such "sealers" and the law gave other cities power to appoint such officers.

The Spencer amendment requires all counties having more than 50,000 population to appoint inspectors and the county councils of the state, under such circumstances, are mandated to appropriate the money necessary to run the inspector's office.

The saving to the Indiana housewife from the operation of the few "sealers" throughout the state under the old law ran up into the millions of dollars. In some of the counties, however, under the former act, the county councils refused to appropriate sums sufficient for the inspectors that the commissioners had authorized. The Spencer amendment settles that question explicitly.

The Spencer amendment, furthermore, takes the inspector's office out of politics, so far as that is possible. It provides that the present inspectors and those that may be appointed in the future, shall serve continuously during good behavior and prohibits their removal for political reasons. This amendment will enable the inspector to enforce the law without discrimination and will remove him from a position he formerly held in Indiana, where politics figured strongly in the office in many counties. The amendment also allows all counties of the state, having a population of less than 50,000 to appoint inspectors if they desire.

The law further provides that all commodities shall be sold by standard weight or measure. This amendment will do away with the practice of selling goods by bulk or by basket or by package in such a way that the consumer is absolutely unable to calculate the real value of the purchase.

An exception to the rule in the law is made for such commodities as are put up in packages and so marked as to indicate the weight or size of the contents, and in the case of commodities which are commonly sold by numerical count.

The amendment carries an annual appropriation of $5,000 for running the state end of the new department, which formerly was unprovided for. H. E. Barnard, state food and drug commissioner, has had charge of the administration of the 1911 law and will continue to administer the law as amended.

Under the additional appropriation the state department, which has complete supervision of the work of the inspectors throughout the state, will place special inspectors in various portions of the state as an addition to the force of county and city inspectors appointed under the new law.

The state food and drug department has set about to draft a uniform "pure milk" ordinance for every city in the state. Inspectors of the food and drug department are now collecting data in practically every Indiana city and a uniform ordinance is to be drawn up and placed at the disposal of all city councils.

The control of city authorities over the milk situation long has been a joke in Indiana. In nearly all cases any ordinance that has been in effect is vague and practically useless. The changing administrations in the various cities have let whatever ordinances originally were passed drop into "innocuous desuetude."

An inspection of the cold storage warehouses of the state made under the direction of the state department has shown that practically no goods are on hand which have been stored far more than nine months. The perishable goods, such as eggs, poultry, fish and meats, have without exception, been removed before the expiration of the time limit, according to the officials in the state department.

Under a ruling of the state department, commodities, which are found to be uninjured although they have been allowed to remain in storage more than nine months may be placed on the market. Certain of these, such as canned goods, dried fruits and cheese have been allowed to go on the Indiana market, following the inspection of the larger storehouses of the state.

WILL PACK FINER FISH.

Salmon canning interests on the Pacific are turning their attention toward the 1913 packing season, and indications are that the pack of the cheaper grades of salmon will be materially reduced. Well informed salmon canners expect that the pack of chum salmon will amount almost to nothing this year on account of prevailing market conditions and because there is now no profit in packing this grade of fish. Pinks also will be reduced, although not to the same extent as chums. Salmon canners will devote their attention this season very largely to packing the finer grades of fish. On Puget Sound the canners will operate heavily on sockeyes, but in other waters of the coast salmon canning operations will be generally curtailed, including Alaska, where the canneries will be operated less extensively than last year, some of the plants suspending altogether for this season.

BREAD WEIGHT LAW UPHELD.

Many people have been interested in watching the progress of the bread weight law case which was in court for a long time, having been carried up until it reached the supreme tribunal. It has now been announced that the United States Supreme Court has sustained the validity of the Chicago ordinance prohibiting the sale of short weight bread, reversing the decision of the lower court that the ordinance was unconstitutional.

The history of the case in brief is as follows:

In January, 1908, the City Council of Chicago passed an ordinance the main provisions of which are as follows:

"Every loaf of bread made or procured for the purpose of sale, sold, offered or exposed for sale in the city of Chicago shall weigh a pound avoirdupois (except as hereinafter provided), and such loaf shall be considered to be the standard loaf in the city of Chicago. Bread may also be made or procured for the purpose of sale, sold, offered or exposed for sale, in half, three-quarter, double, triple, quadruple, quintuple or sextuple loaves, and in no other way. Every loaf of bread made or procured for the purpose of sale, sold, offered or exposed for sale in the city shall have affixed thereon in a conspicuous place a label at least one inch square, or if round, at least one inch in diameter, upon which label there shall be printed in black ink upon white paper from type not smaller or making a less conspicuous letter than the type commonly known as twelve-point full-face square Gothic capital letters and figures the weight of the loaf in pound, pounds or fraction of a pound avoirdupois, whether the loaf be a standard loaf or not. The business name and address of the maker, baker or manufacturer of the loaf shall also be printed plainly on each label."

The Chicago bakers objected to what they termed an arbitrary interference with their business, and a test case was made and carried into court. Mathias Schmidinger, a Chicago master baker, was arrested for violation of the above ordinance, but the Circuit Court of Cook County declared the ordinance to be in violation of the 14th Amendment of the Federal Constitution and unconstitutional.

The City of Chicago appealed the case to the Supreme Court of the State, by whom the Circuit Court's decision was reversed and the right of the city to pass such a law was upheld.

The National Association of Master Bakers, acting in behalf of all bakers in this country, then assumed charge of the case, employed eminent counsel, and carried an appeal to the United States Supreme Court.

The appeal was argued before the Supreme Court of the United States during the week of December 16 to 21, 1912, and on the 13th of January, as stated above, Judge Day, for the Court, announced the decision upholding the ordinance, which has been in effect in Chicago since the decision of the Illinois Supreme Court sustaining it, which was rendered in December, 1909.

"The making and selling of bread, particularly in a large city, where thousands of people depend upon their supply of this necessary of life by purchase from bakers," says the opinion, "is obviously one of the trades and callings which may be the subject of police regulation."

"This general proposition is conceded by the counsel for plaintiff in error, but it is contended that the limitation of the right to sell bread which this ordinance undertakes to make in fixing a standard loaf of sixteen ounces and other half, three-quarter, double, triple, quadruple, or sextuple loaves, is such an unreasonable and arbitrary exercise of legislative power as to make it unconstitutional and void. This court has frequently affirmed that the local authorities intrusted with the regulation of such matters and not the courts are primarily the judges of the necessities of local situations calling for such legislation, and the courts may only interfere with laws or ordinances passed in pursuance of the police power where they are so arbitrary as to be palpably and unmistakably in excess of any reasonable exercise of the authority conferred.

"Furthermore, laws and ordinances of the character of the one under consideration and tending to prevent frauds and requiring honest weights and measures in the sale of articles of general consumption have long been considered lawful exercising of the police power."

The bakers complained of the inconvenience of making a one-pound loaf, adding that twenty ounces of dough would be required.

"But inconveniences of this kind," says the opinion, "do not vitiate the exercise of legislative power. The local legislature is presumed to know what will be of the most benefit to the whole body of citizens. Evidently the council of the city of Chicago has acted with the belief that a full pound loaf, with the variations provided, would furnish the best standard. It has not fixed the price at which bread may be sold. It has only prescribed that the standard weight must be found in the loaves of the sizes authorized.

"To the argument that to make exactly one-pound loaves is extremely difficult, if not impracticable, the Supreme Court of Illinois has answered—and this construction is binding upon us—that the ordinance is not intended to limit the weight of a loaf to a pound or the fractional part or multiple of a pound, but that the ordinance was passed with a view only to prevent the sale of loaves of bread which are short in weight."

The court says there is nothing so unreasonable in this as to classify the act of the council as a violation of the fourteenth amendment to the constitution.

"It is further urged," said the court, "that this ordinance interferes with the freedom of contract guaranteed by the fourteenth amendment, for it is said that there is a demand for loaves of bread of sizes other than those fixed in the ordinance, which demand exists among many people and also among contractors whose business requires special sizes to be made for them. This court has had frequent occasion to declare that there is no absolute freedom of contract."

The court's decision in this case gives much satisfaction to local food authorities as it so emphatically and unequivocally asserts the fact that matters of the character litigated in this bread weight case are proper subjects for police regulation, and that local law making bodies are presumed to be the best judges of what is of the greatest benefit to the public as a whole. The Illinois Supreme Court having decided on the point of such public benefit the United States Supreme Court holds that the decision of the state court is binding on it.

These points involving lack of local authority to make regulations, and right of contract are frequently contentions of parties defending themselves in suits for violation of food laws and regulations, and the attitude of the United States Supreme Court as stated in the bread weight case lends great strength to the arms of local administrative officers.

RECOMMEND STANDARD CAN SIZES.

A committee of experts recently appointed at a meeting in Chicago to consider the subject of standardization of can sizes used by packers of canned foods has made a report stating that they had agreed upon the following sizes:

HOLE AND CAP CANS.

	Inches—Diam.	Inches—Height.
No. 1 size	2 11-16	4
No. 2	3⅜	4 9-16
No. 2½	4	4¾
No. 3-4⅞ inch	4 3-16	4⅞
No. 3-5 inch	4¼	5
No. 3-5½ inch	4¼	5½
No. 10	6¼	6¾

SANITARY CANS.

No. 1 size	2 11-16	4
No. 2	3 7-16	4 9-16
No. 2½	4 1-16	4¾
No. 3-4⅞ inch	4¼	4⅞
No. 3-5 inch	4¼	5
No. 3-5½ inch	4¼	5½
No. 10	6 3-16	7

It is stated that the standard sizes recommended represent no changes whatever in most cases, and such changes as have been made are minor. There are no changes whatever as regards diameter.

It was found that whereas there are some slight variations in cans made by different manufacturers, still these were insignificant and would make no appreciable difference in capacities. Nevertheless, it is thought best that any variations, however slight, should be done away with and uniform standards adopted by all.

WHEN IS AN ORANGE RIPE?

A Tallahassee, Florida, dispatch says this is one of the next questions to be put before the Supreme Court of the United States in an appeal from the recent decision of the Florida Supreme Court upholding as constitutional the Florida green fruit law. The Florida statute prescribes the age of an orange and its condition of maturity before it can be shipped out of the state.

CAPE COLONY'S OUTPUT OF FRUIT AND NUTS.

The approximate average annual output of dried fruit in Cape Colony, South Africa, in recent years is stated officially as follows: Apricots, 200 tons; prunes, 400 tons; pears, 12 tons; peaches, 85 tons; raisins, 550 tons; figs, 25 tons; walnuts, 12 tons; apples, 2½ tons; almonds, 2½ tons.

Illinois Food and Oleomargarine Laws Upheld

PROSECUTIONS instituted by the Illinois State Food Commissioner, in which the food law and the oleomargarine law were attacked, have been sustained in decisions just rendered by the supreme and appellate courts.

The case in the supreme court involved the constitutionality of several sections of the food law. The defendant was convicted of selling a preservative known as "Mrs. Price's Canning Compound," containing boric acid, which is declared in the food law to be deleterious. It was contended on behalf of the defendant, that it was beyond the power of the legislature to declare boric acid deleterious, or to forbid the sale of such a preservative unmixed with food. It was also contended that the act as construed, was an infringement upon the power of congress to regulate commerce between the States. These contentions were overruled by the court and the conviction sustained. The defendant has filed notice that he will ask for a rehearing.

The decision of the appellate court frustrates an attack upon the oleomargarine law, intended to nullify its enforcement. The defendant was fined in the municipal court of Chicago for violating a section of the oleomargarine law requiring the dealer to inform the purchaser what he was getting. The evidence showed a fraudulent sale of oleomargarine for butter. The gist of the defendant's claim was that the provisions of the food law, which require the inspector to disclose his identity and leave a duplicate sample with the dealer, constituted an amendment to the oleomargarine law and should have been observed. Had this contention been sustained it would have rendered the detection of dishonest dealers almost impossible. The decision holds that provisions of the food law do not apply to prosecutions under the oleomargarine law. Mr. Charles F. McKinley, attorney for the food commission, appeared in both cases on behalf of the People; while Mr. Edgar L. Jayne of Minneapolis and Messers. Tolmann & Redfield and Mr. H. P. Chandler of Chicago appeared for the defendant in the boric acid case, and Mr. T. F. Monahan appeared for the defendant in the oleomargarine case.

The opinions in full are as follows:

People vs. Anderson Tea Company.

The People of the State of Illinois, Defendant in Error,
v. Anderson Tea Company, a Corporation,
Plaintiff in Error.
Error to the Municipal Court of Chicago.

Mr. JUSTICE MCSURELY delivered the opinion of the court:

This is a case commenced by information in the Municipal Court of Chicago, charging that the Anderson Tea Company, hereinafter called defendant, on or about March 1, 1912, in Chicago, "did unlawfully offer for sale and sell a certain quantity of imitation butter without then and there informing the purchaser thereof that the substance offered for sale and sold was imitation butter, contrary to the form of the statute," etc. The case was tried by a jury, resulting in a verdict of guilty, and defendant was fined $100 and costs. It is urged by the defendant that this judgment should be reversed.

The statute above referred to is section 4 of "An Act to Regulate the Manufacture and Sale of Substitutes for Butter." approved June 14, 1897, in force July 1, 1897, chapter 38 Hurd's Revised Statutes, sections 39d to 39n. In 1907 the legislature passed an act entitled "An Act to prevent Fraud in the Sale of Dairy Products," etc. Defendant contends that the act of 1897 and the act of 1907 must be construed together. The pertinency of this contention lies in the fact that by section 4 of the act of 1907 it is provided, concerning persons securing evidence, that "The person taking such sample as provided for in section 2 of this act, shall . . . divide the same into two equal parts . . . he shall in the presence of the person from whom the same is taken, mark or seal each half or part of such sample with a paper seal or otherwise, and shall write his name thereon and number each part of said sample with the same number, and also write thereon the name of the said dealer in whose place of business the sample is found, and the person from whom said sample is taken shall also write his own name thereon." It is conceded by counsel for the people that the provisions of this section were not followed by the inspectors who secured the evidence against the defendant.

We cannot yield assent to the claim that the Dairy Act of 1907 must be construed together with and as a part of the act of 1897. The act of 1897 is complete both in its terms of regulation and in its provisions for enforcing the act. It has been held to be a valid enactment. People v. Freeman, 242 Ill. 373. The law of 1907 specifically exempts from repeal the act of 1897. Section 43, chapter 127b, Hurd's Revised Statutes. Regardless, however, of this proviso in the law of 1907, a consideration of the act indicates no legislative intent to alter the prior act, either by adding anything thereto or in any other way. Section 11 of the act of 1897 makes it the duty of the State's Attorney to prosecute all violations of the act "upon the complaint of any person." To hold that there could be no prosecution upon the complaint of "any person" who might be able to produce proof of the violation of the act, unless such person should go through the process described by section 4 of the act of 1907, would substantially change the act of 1897. We understand that counsel does not contend that the subsequent act changes the former act, but in our opinion his contention necessarily involves such a change. The doctrine of construction in *pari materia* has no place here, as there is no inconsistency in the two acts and the terms and provisions of each are clear and unambiguous.

It is well settled that a subsequent statute, which is general, does not abrogate a former statute which is special (Holton v. Daly, 106 Ill. 131), and, as we have said, to inject section 4 of the act of 1907 into the act of 1897 is to alter materially the earlier act.

Other errors are suggested, but we deem them not to be of sufficient importance to justify a reversal. The case was a criminal prosecution, and the proceedings seem to have been properly conducted. It was not error for counsel to read law to the jury if he desired to do so. It was also proper for the judge to impose the penalty. Division XIV of Criminal Code, section 10.

There seems to be no dispute as to the facts. The defendant company conducted a tea, coffee and butter store on Milwaukee avenue. Witnesses went into the store and asked for a pound of thirty-cent butter. There was a tub in the ice-box exposed to view with a sign over it marked "30 cents." The clerk in charge of the store took a quantity of what looked like butter from this tub, weighed and wrapped it, and handed it to the witness, who paid him thirty cents for the same. Nothing was said by the clerk to indicate that it was not genuine butter, nor was there any mark on the package. It is not denied that upon analysis the contents of the package were found to be oleomargarine. This conduct of the defendant was strictly within the provisions of the act making it unlawful to sell or offer for sale any imitation butter without informing the purchaser thereof that the substance sold or offered for sale was an imitation.

We are of the opinion that the verdict and judgment were fully justified by the evidence, and there being no reversible error the judgment will be affirmed.

AFFIRMED.

People vs. Price.

People of the state of Illinois, defendant in error, v. W. T. Price, plaintiff in error.

Mr. Justice Farmer delivered the opinion of the court:

Plaintiff in error was fined $50 and costs in the municipal court of the city of Chicago for violating what is commonly

known as the Pure Food statute, enacted in 1907, and has sued out a writ of error to review the judgment.

The title of the act is, "An act to prevent fraud in the sale of dairy products, their imitation or substitutes, to prohibit and prevent the manufacture and sale of unhealthful, adulterated or misbranded food, liquors or dairy products, to provide for the appointment of a state food commissioner and his assistants, to define their powers and duties and to repeal all acts relating to the production, manufacture and sale of dairy and food products and liquors in conflict herewith." The charge against plaintiff in error was that he "did unlawfully manufacture for sale, offer for sale and sell, a certain preservative compound known as Mrs. Price's Canning Compound, intended as a preservative of food, which was then and there unwholesome and injurious in that it contained boric acid, an unwholesome and injurious substance, in violation of the act aforesaid." To the charge he pleaded not guilty and waived trial by jury.

On the trial certain facts were agreed to by stipulation between the parties, as follows: "That the defendant, W. T. Price, on or about August 30, 1911, at Chicago, in said county, offered for sale, and sold, two packages of a preservative known as Mrs. Price's Canning Compound; that said canning compound contained boric acid; that the label on said packages bears the following statement: 'It is not claimed for this compound that it contains anything of food value, but it is an antiseptic preparation, and among its many uses may be employed to prevent canned fruits and vegetables from souring and spoiling'; that said preservative was not offered for sale or sold in any food product, but was offered for sale and sold, separate and apart, as a preservative; that the defendant was accorded a hearing before the state food commission, pursuant to the provisions of the food law."

The State also introduced in evidence the envelope or covering used for enclosing the compound referred to in the stipulation. Printed on one side of the envelope was the following:

"Mrs. Price's Canning Compound,
Manufactured by
The Price Compound Company,
Minneapolis, Minn.

"May be used in canning all kinds of fruit, and is especially valuable for corn, beans, peas, asparagus, tomatoes, etc.

"May also be used in making catsup, sweet pickles, or anything that is liable to ferment. It saves money, time, labor, worry, and insures the best results. See book of directions for instruction in using the compound and how to do all kinds of canning.

Book with free samples sent to any address on application.

The contents of this package is sufficient for four quarts.

For compound or information call on our agent or address

Serial No. 7557.
Guaranteed by the
Price Compound Co.
under the
Food and Drug
Act of June 30th,
1906.

Mrs. W. T. Price, 1605 Penn avenue, North Minneapolis, Minn."

The other side of said envelope contains the following words and figures:

"Notice to Purchasers.

"It is not claimed for this compound that it contains anything of food value, but it is an antiseptic preparation, and among its many uses may be employed to prevent canned fruits and vegetables from souring and spoiling.

* * * * * * * * *

Retail Price

1 Package 10c. 3 Packages 25c. 7 Packages 50c.
15 Packages $1.00."

No other evidence was offered by the State. Plaintiff in error at the conclusion of the State's case entered a motion that he be found not guilty, assigning as reasons therefor that the proof was not sufficient to authorize a conviction and also that the act is unconstitutional. The court denied the motion, and plaintiff in error then offered to make certain proof. It was stipulated that a witness in court, if sworn, would testify that the Price Canning Compound is an article of commerce which has been sold under that distinct name for a period of years, with the ingredients and in the proportions contained in the sample taken by the food department which is the subject of this suit; that it has acquired a wide reputation over a large number of States in the Union as a distinctive article used for canning by the housewife; that it is not sold by the defendant in any food nor as a food, nor is it sold to manufacturers of food or canners of food for sale; that boric acid is a constituent part of the compound, and has been such during all the time that the compound has been sold; that in the sample taken by the food department, and, in fact, in any other goods sold by this defendant, there is no added ingredient of any kind whatever, whether it be injurious, deleterious or otherwise. He also offered to prove that boric acid is not injurious to the health or human system, and that the Price Canning Compound is not adulterated or mislabeled in any way. Objections by the State to this proof were sustained. Plaintiff in error also offered to prove, and it was agreed that a witness, if placed on the stand, would testify, that the compound is an article of commerce manufactured in Minnesota and sold in the original package in Illinois.

The court denied propositions of law tendered by plaintiff in error raising the material questions involved in this litigation, which are thus stated in plaintiff in error's brief: "First, is the sale of a harmless preservative in the State of Illinois prohibited by the Dairy and Food law merely because it contains boric acid? Second, if such is the effect of the statute, is so much of it constitutional? Third, can the State of Illinois, in any event, prohibit the sale of a preservative manufactured in another State and sold in this State in the original package?"

The position of the State is, that by the Pure Food act boric acid was declared unwholesome and injurious, and this obviated the necessity for proof of that fact. Section 8 provides that food shall be deemed to be adulterated "if it contains any added poisonous or other added deleterious ingredient which may render such article injurious to health, * * * and formaldehyde, hydrofluoric acid, boric acid, salicylic acid and all compounds and derivatives thereof are hereby declared unwholesome and injurious." Section 22 forbids anyone to "manufacture for sale, advertise, offer or expose for sale, or sell, any * * * unwholesome or injurious preservative or any mixture or compound thereof intended as a preservative of any food: *Provided, however,* that this section shall not apply to pure salt added to butter and cheese."

We will first notice the objection of plainitff in error that section 8 deals only with foods; that the declaration in that section that boric acid is injurious and unwholesome is limited to foods containing that substance as an added ingredient, and has no application to a preservative which is not, and does not purport to be, a food.

Both sections 8 and 22 are parts of one act, and the act, as a whole, should be so construed as to give effect to its manifest purpose and intent. Its main purpose is to protect health by preventing adulteration of food by any unwholesome and injurious ingredient. Boric acid is declared to be unwholesome and injurious, and the sale of any food to which it is an added ingredient is prohibited. It was well known to the legislature that various compounds are manufactured and sold for preserving foods of different kinds. If such preservatives contain unwholesome and injurious ingredients, their use by the housewife, or anyone else, in preserving fruits or food, would be as injurious to the health as if they had been added by a dealer or manufacturer to fruits or other foods before placing them on the market. The object of the act is to protect the public health by preventing dealers from selling food to which had been added, for the purpose of preserving it, ingredients injurious to the health, or from selling any compound as a preservative which contained any such ingredients. The prohibition is not against the sale of all preservatives, but is against only unwholesome or injurious preservatives. It is a primary rule in the interpretation and construction of a statute that the intention of the legislature is to be ascertained and given effect. In ascertaining the legislative intent each part or section is to be considered in connection with every other part or section, also the evils intended to be remedied by the enactment. "The intent is the vital part—the essence of the law—and the primary rule of construction is to ascertain and give effect to that intent." (Lewis' Sutherland on Stat. Construction, sec. 363.) If a statute is susceptible of more than one construction it should be given the construction that will effect its purpose rather than one that will defeat it. (*People* v. *Hinrichsen,* 161 Ill. 223.) It is just as important to prohibit the sale to the housewife of a compound containing boric acid, to be used by her to preserve fruits and vegetables put up by her for family use, as it is to prohibit the sale of fruits and vegetables after such an ingredient has been added. We think

the reasonable construction of the act to be that the prohibition against boric acid is not limited to foods to which it is an added ingredient, but extends to compounds sold as a food preservative which contain boric acid. The danger to health is as great from one as the other, and the prohibition of both was necessary to effect the evident purpose of the legislature.

It is also contended that boric acid is not, in fact, unwholesome and injurious; that the court erred in refusing to hear evidence upon that question, and if the declaration that boric acid is unwholesome and injurious obviates the necessity for proof of that fact, it violates section 2 of article 2 of our State constitution and the provision of the fourteenth amendment to the constitution of the United States, to the effect that no person shall be deprived of liberty or property without due process of law. Plaintiff in error quotes from scientific authorities that boric acid, in proper quantities, is harmless and an effective antiseptic and preservative. Defendant in error cites and quotes from a publication giving the results of an extensive scientific investigation made by the National Bureau of Chemistry under authority given by Congress, of the effect of boric acid on the human system, in which publication it is stated the effect was found to be injurious. It may be conceded the legislature has no authority to forbid the sale of a known wholesome article of food, but it is certain boric acid is not so universally conceded or known to be wholesome that judicial notice will be taken of it. Whether it is or not is a matter of dispute. In such cases, in enacting legislation in the exercise of the police power of the State the legislative declaration that it is unwholesome must be accepted by the courts, and they will not investigate the facts for the purpose of determining whether the declaration of the legislature was warranted by the facts. (*Powell* v. *Pennsylvania,* 127 U. S. 678; *State* v. *Layton,* 160 Mo. 474; 83 Am. St. Rep. 487; *Adams* v. *Milwaukee,* 144 Wis. 371; *Sanders* v. *Commonwealth,* 117 Ky. 1; 111 Am. St. Rep. 219; *People* v. *Cipperly,* 101 N. Y. 634; 4 N. E. Rep. 107; *State of Iowa* v. *Schlenker,* 112 Iowa, 642; 51 L. R. A. 347.) The same principle has been declared by this court in cases involving the right of a legislative body, State or municipal, to declare a thing a nuisance. (*Laugel* v. *City of Bushnell,* 197 Ill. 20.) If the act before us is, as we hold it to be, a valid exercise of the police power, the answer to the contention of plaintiff in error that it is in violation of the provisions of the State and Federal constitutions before referred to will be found in the cases above cited.

It is also contended that if the act is construed as we have construed it—to prohibit the sale of a food preservative containing boric acid—it is in violation of section 13 of article 4 of our State constitution, in that it embraces a subject not expressed in the title. It is argued that by the title the act is limited to dairy products, food and liquors, and that any prohibition against preservatives is beyond the scope of the title. We do not agree with this contention. If, as we have above endeavored to show, the prohibition against the sale of unwholesome and injurious preservatives is so material a part of the act and so necessary to make effective the manifest purpose of the enactment, it requires no unwarranted stretch to hold that the title is broad enough to include the sale of unwholesome preservatives. The constitutional provision said to be violated is to be liberally interpreted in aid of the act. (*Town of Manchester* v. *People,* 178 Ill. 285.) "The fact that many things of a diverse nature are authorized or required to be done is unimportant, provided the doing of them may fairly be regarded as in furtherance of the general subject of the enactment." *McGurn* v. *Board of Education,* 133 Ill. 122.

It is further contended that if the act under consideration be construed as we have construed it—to prohibit the sale of Price's compound—it is an infringement upon the power of Congress, to which body is delegated, by the constitution, the power to regulate commerce among the several States. The power of a State to prohibit within its borders the sale of adulterated food is not repugnant to the commerce clause of the Federal constitution but is a valid exercise of the police power of the State. *Plumley* v. *Massachusetts,* 155 U. S. 461; *Schollenberger* v. *Pennsylvania,* 171 *id.* 1; *Crossman* v. *Lurman,* 192 *id.* 189.

Neither was plaintiff in error protected, in the sale of the preservative, under the doctrine of the original package decisions of the Supreme Court of the United States. *Austin* v. *Tennessee,* 179 U. S. 342.

We are of opinion the municipal court did not err in the judgment rendered, and that judgment is affirmed.

JUDGMENT AFFIRMED.

FOOD CASES DISPOSED OF AT CHICAGO.

Several food cases tried in the United States District Court for the Northern District of Illinois, sitting at Chicago, were disposed of in February, these having been handled on the part of the Government by Assistant United States Attorney Frederick Dickinson.

On February 17 an adulteration and misbranding case against the Hudson Mfg. Company involving Hudson's vanilla extract was dismissed on motion of the government. On the 19th of February a second case against this company was dismissed on motion of the government.

The third case against the Hudson Mfg. Company was a charge of adulteration and misbranding of Hudson's Prime Mexican Vanilla and Tonka Extract. This case was tried before a jury and a verdict of guilty returned. The court fixed the fine at $50. In a fourth case against the same company, involving a similar product, on defense the president of the company took the stand and admitted that there were no Mexican beans in the product. It was accordingly not necessary to go ahead with the case. The defense changed its plea to guilty, and as the estimated costs amounted to between $400 and $500 the court imposed a fine of $100.

On February 18 the case of the government against D. B. Scully Syrup Co. was disposed of. This was a short measure case. The court ruled that a general guaranty covering all future shipments was not sufficient.

In the Scudder Syrup Co. case involving short measure it was charged that the box in which the goods were shipped was labeled "2 dozen Scudder Purity Quarts Maple Syrup." It was shown, however, that there was an average of 12 per cent less than a quart in the containers, and the jury before which the case was tried returned a verdict of guilty and a fine of $50 and costs was imposed.

Three cases against the Spielmann Bros. Company, involving adulterated and misbranded vinegar were called, the defendant pleaded guilty, and a fine of $100 and costs was imposed in each case.

The Sethness Company was charged with adulteration of peach concentrate, pineapple oil, banana oil and strawberry oil. It pleaded guilty and was assessed a fine of $100 and costs.

STANDARDS ADOPTED BY ILLINOIS FOOD STANDARD COMMISSION.

At a meeting of the Illinois State Food Standards Commission held at the office of the State Food Commissioner, Chicago, March 1, 1913, the standards as formerly adopted by the Illinois State Food Commissioner were adopted as tentative to be in force from that date, and Commissioner A. H. Jones was authorized to promulgate same.

There was but one change made in these standards and that the requirements in reference to ice cream. The new ice cream standard reads:

"Ice cream is a frozen substance, made from cream, or milk and cream, and sugar, with or without the addition of such other wholesome substances as have customarily been used in making ice cream, and contains not less than eight per cent (8%) milk fat."

An explanatory note is appended stating that "the following other substances have customarily been used in making ice cream: Eggs, flours, starches, butter, gelatin, flavoring, nuts, fruits, pastries and condensed milks."

The Illinois Dairy and Food Laws of 1907, as amended in 1909, and 1911, provide:

In the enforcement of this act and the construction thereof all articles of food not defined in this act, when offered for sale or exposed for sale, or sold, shall conform to the definition and analytical requirements of the standard adopted and promulgated from time to time by the State Food Standards Commission: *Provided,* such standards for any article of food or drink, or for any substance used or intended to be used in food or drink shall be deemed *prima facie* evidence of the proper standard of quality, purity and strength of any such article or substance, but shall only be deemed such *prima facie* evidence in the trial of cases brought in the proper courts to enforce the provisions of this act: *Provided,* that nothing in this section shall be construed to prevent the sale of any wholesome food product which varies from such standards, if such article of food be labeled so as to clearly indicate such variation.

National Canners' Association Convention

THE sixth annual convention of the National Canners' Association and allied organizations was held at Louisville, Ky., February 10-14. It was undoubtedly the best meeting the association ever held. There was a good attendance and unusual enthusiasm, due largely to the extraordinary exertions the canners have made during the past two years to promote a greater interest in canned foods.

One of the most interesting features of the meeting was the strong stand taken in favor of sanitation. The canners have had their ears to the ground and have heard the persistent rumble against impure foods and unclean methods of manufacture. They have come to realize that it is not enough for the canners themselves to know that their factories are sanitary and their food product wholesome. They have come to feel the necessity of having the general public know these things, and to that end a campaign of publicity has been set on foot, through means of which the public is to be compelled to understand the quality of canned foods.

President Haserot made sanitation and publicity the keynote of his address. "By no means," he said, "will your efforts to clean house abate. At the Rochester convention, a year ago, one of the best practical papers that was presented was submitted by Dr. A. W. Bitting, Food Technologist of the Bureau of Chemistry of the Department of Agriculture. The industry is under obligation to Dr. Bitting for the very pertinent suggestions that he has made during the past three years, following up his personal investigations upon the subject of sanitation. So necessary is it that there shall be practical sanitation in the production of canned food that I cannot too strongly urge upon you to again secure from the office of the secretary, Dr. Bitting's pamphlet, which, by unanimous vote, was ordered printed in order that it might have a generous distribution throughout the country and in order that the opportunity might not be allowed to pass, to take advantage of these important features of Dr. Bitting's investigations.

"You may say that in our kind of business it is not possible to keep everything up to the proper point of cleanliness and sanitation. You may say that the rush of business makes it necessary to care for the product as it comes in, the season is short and labor is scarce; but, while this is true, there should be the constant desire to 'clean up.' I should advise every man who expects to put his best foot forward not only to study, but to adopt the ideas that are presented in Dr. Bitting's report, so that there shall be no room for criticism. A way will be found if you make it your business, with the information that you have at hand or can readily secure, to find a way. As Dr. Bitting well states: 'There are some steps in which human intelligence must play a part.'

"From a personal standpoint continue to welcome publicity, stand for it, let the avenue of approach be broad. 'Keep Out' signs on premises where canned foods are now produced have so long been replaced with 'Come In' invitation that the former would appear as much out of place today as they might have been common ten years ago. There is nothing to conceal. It is an open book. Within the past month, when the industry was called before the bar of the Congress of the United States for an explanation, it was well that it could respond in no equivocal way: 'We are ready for any kind of an investigation.' What better form of publicity may be evoked?

"On the other hand, publicity of an unfair character, and formerly meted out to us in wholesale doses, is gradually being eliminated from the head-line category—thanks to a painstaking, consistent policy of education."

The canners never realized quite as fully as they did at this convention that purity of food products is an absolute necessity from a commercial point of view, and the general feeling was in favor of still better goods where it is possible to make improvement. A better raw product is demanded, which means better cultivation of the soil, as well as greater care in handling under the loose methods of other days. The packer who put up a high class product was compelled to compete with those who put up an inferior grade of goods. The competition was unfair and it put the good canner to his wits' ends to make both ends of his business meet. Today, with a splendid organization in which co-operation plays an important part, the cheating canner of other days has no standing. Besides a watchful public has an eye on the unfit food factories and a means of making them do right or go out of business, and the good work the organized canners have set out to do is to help the public get rid of the unsanitary canner and his poor food product.

H. A. Baker in an able address recommended the certification of canned foods.

"Manufacturers and distributors generally," he said, "are endeavoring to obtain proper public recognition of the merits of their products by giving guarantees or certifications as to their exact nature and quality. These guarantees must be subtantial and definite, and furnish a sound basis for advertising, which itself is, in effect, certification at the present time, as advertising does not pay unless applied to articles of demonstrated merit and quality.

"Authoritative certification, especially of food products, is well received by the buying public, and it has shown that it is willing to pay for the cost of that certification. In this connection, certified milk may be mentioned as one article typical of many which illustrate this point.

"Canned foods, as a class, are so nearly on a plane on which they could secure an authoritative chemical and sanitary certification, that it would strike the average observer as rather peculiar that more capital has not been made out of this point, and that the few remaining steps necessary for this certification should not already have been taken to the great benefit of the public and the industry.

"Canned foods should stand forth as a class by themselves as distinct from prepared foods of other description and nature, and should thereby escape the results of general food criticism, which will probably always be a live issue with prepared foods, even if on no other grounds than artificiality, unscientific composition or insufficient food value. Canned foods are simply natural products sterilized, and this fact classifies them. The public demands certification of such products as its right, and certification would insure protection for these products against general food criticism."

W. D. Bigelow spoke on the opportunity of trade organization. Referring to the canners' organization he said:

"Your own association was organized, I suppose, for the study of manufacturing and commercial conditions. The field the association occupies now is broader than its founders planned. You have shown the ability and the disposition to recognize new conditions and shape your work accordingly. A research committee, appointed two years ago, has made great progress with one of your most vexing problems. You are now considering the organization of a laboratory that will solve other problems that confront you and doubtless will study questions that have not yet presented themselves. The field for such a laboratory is boundless. Its value to the industry and to the consuming public cannot be overestimated. It will doubtless contribute further to the very creditable growth of the association in numbers and strength—but is there not danger of confusing numbers with strength? The story is told of one deacon meeting another from a distance and telling him of a wonderful revival his church had conducted which had greatly increased its strength. His friend asked how many they had taken in. 'Oh,' was the reply, 'we didn't take anybody in, but we put fifty out.' 'A chain is no stronger than its weakest link.' A man is judged in large part by his poorest efforts; an association of manufacturers cannot escape responsibility for the worst products of its least desirable members.

"The time is coming when there will be trade organizations that will inspect the products of their members; will establish standards of sanitation, quality, grades and labels, and will punish or expel members who do not conform to those standards. Such a movement is in line with the tendency of the times. It is only a step beyond what you are doing. Will this step be taken by large organizations like the National Canners' Association, or will new organizations be formed, smaller in size, which will grow as the advisability of the step becomes evident? I believe that such a movement should begin on a relatively small scale, and should be within the present large organizations, so that as the movement grows it will approach more nearly the membership of the present association until the two become identical."

The following officers were elected for the ensuing year:

President, B. M. Fernald, Maine; first vice-president, W. C. Leitsch, Wis.; secretary-treasurer, F. E. Gorrell, Md.

Status of Pennsylvania Food Legislation

HARRISBURG, PA., March 10.—Although over a dozen bills affecting the sale, storage or handling of foods are before the state legislature, only one stands any chance of becoming a law within the next ten days. The committees of the two houses are burdened with bills of every character, over 1,150 having been introduced into the house alone and almost 400 in the senate. All records for presentation of proposed legislation have been broken and the members are bewildered by the rush and kept busy considering important measures in committees and clearing the calendars of local bills, which are being gotten out of the way as rapidly as possible.

The bill affecting food interests which is farthest advanced is the senate bill requiring all eggs unfit for food to be denatured with kerosene under a penalty similar to that imposed by the general food act of 1909 for violations. This bill passed the senate a week ago and will probably pass the house within a few days. Being an administration measure, it will undoubtedly be signed.

Out of half a dozen bills to regulate cold storage the house committee evolved a measure which is now before the lower branch for final passage and which is acceptable to the administration. It provides for a system of state inspection and license, at a cost of $50; for quarterly reports on kind and quantity of food products in storage; for dating of containers with time placed in storage and time withdrawn, and for marking before selling at wholesale of containers with words "Wholesome cold storage food." The bill also contains time limits for foods, as follows: Beef, 4 months; pork, sheep, lamb, and dressed fowls, 6 months; veal, 3 months; drawn fowl, 5 months; butter and eggs, 8 months; fish, 9 months. No food withdrawn for sale can be replaced in storage, and transfers can only be made under direct supervision by the dairy and food commissioner. The bill is not to affect refrigerator cars or fresh food being kept in ice boxes for retail sales. In addition to the commissioner, any citizen may commence an action at law for violation of the law and shall receive one-half of the fine. The penalties for violation are fines of $500 to $1,000 and in addition officers may be sent to prison for from 30 to 90 days.

The biennial fight over regulation of sales of oleomargarine is now on, two bills being before a house committee with prospects that another may appear under administration auspices within a few days. One bill allows the use of coloring matter and reduces licenses. Another requires only manufacturers and wholesalers to take out licenses. The grangers are opposing both bills. The state administration is also against them.

In the senate committee on health and sanitation are the proposed general amendment to the food act of 1909, which would prohibit the use of any preservatives whatever and make the pure food law one of the most stringent in the country; the soft drink act, which prohibits misbranding or the use of coal tar dyes, artificial flavors or a number of chemicals which are enumerated; regulating milk products and establishing standards for them; and the first cold storage bill, which, however, will be abandoned. The committee has held a hearing on the pure food and soft drink bills, at which they were attacked as onerous, and the battle is to be renewed this week, but it is probable that the bills will reach the senate in some form or other. Efforts are being made to have them reported as committed in January.

An act is pending in a senate committee which has the support of both the health and dairy and food departments, which prohibits the employment by any hotel, restaurant, common carrier or other public eating place of any persons as cooks, waiters, maids, kitchen help or house servants suffering from or carriers of communicable disease. A fine of $100 is provided for violation.

The use of milk bottles is to be regulated by a house bill now in the senate and likely to pass. It requires that bottles shall be washed in boiling water immediately before again being filled. The dairy and food commissioner is charged with enforcement of the act, but any citizen may inaugurate a suit. The fine is made from $50 to $100 and the citizen is given half the fine for starting the suit. This bill is the outcome of efforts to halt use of filthy bottles in some of the cities, local regulations not being sufficient to check the unsanitary practice.

Commissioners of counties and mayors of cities are required to name sealers of weights and measures under a senate bill which is understood to have the support of the state bureau of standards. It also provides for a system of monthly reports to the state bureau and cuts down the maximum fine for violation from $1,000 to $500. At present appointment of such officers is optional in counties and cities. A bill which would make appointments of such officers mandatory in Philadelphia is also pending.

A companion bill defines commodities and containers as well as words and phrases used in the handling of foods or commodities of general character, and requires all measures and weights to be stamped or marked. The bill also establishes berry and other small fruit boxes at either one quart, one pint or one-half pint, dry measure, so marked. The bill contains standards for a bushel of seventy-nine different commodities from apples to cement and wheat. The penalty for violation is a fine of not over $100.

During the month of February the Pennsylvania Dairy and Food Division instituted eighty-seven prosecutions for violations of various state food and drink laws, forty more than in January. Thirty-four suits for sale of milk or cream low in fats were started, most of them in Philadelphia. In the same county two suits were brought for the sale of rotten eggs, and five actions for the sale of non-alcoholic drinks containing artificial flavors. Forty actions for the violation of the general food act were brought in fourteen counties, including the three largest, the actions being for the sale of bleached flour, ketchup containing too much benzoate, twenty-one for sale of dried fruits containing undeclared sulphur dioxide. Other suits were for sale of vinegar, fruit syrups and oleomargarine.

IMMENSE BUTTER SEIZURES.

Recent seizures in Chicago cold storage warehouses of more than 250,000 pounds of butter by revenue agents are expected to result, according to a statement of federal officials, in a score of prosecutions in the federal courts.

A report of the seizures and of the findings of government chemists has been forwarded to the internal revenue department in Washington. The confiscation is the result of an examination of several million pounds of butter stored in seven warehouses. The charge made is adulteration with more than 16 per cent water.

Millions of pounds of butter have disappeared from the warehouses since the government began its investigation. In December there were stored in warehouses here about 25,000,000 pounds, nearly half the actual supply in storage in the United States. Since then four-fifths of the product has been moved from the city. The warehouse owners declare it was moved in the natural course of commerce and that there was no intention to evade inspection.

Manufacturers of butter in Illinois, Ohio, Wisconsin, Iowa, Minnesota and Nebraska may be prosecuted for the alleged violations, it is stated. The penalty is a fine of $5,000 and a tax of 10 cents for each pound adulterated. In addition a tax of $600 a year is imposed on those detected in wholesale adulteration.

TO INVESTIGATE FOOD MARKETING IN ST. LOUIS.

The St. Louis Municipal Assembly recently passed a concurrent resolution calling for the appointment of a special committee to investigate the marketing of foods in that city. Dr. Edward F. Randall, a member of the city council, introduced the resolution, which declares that the retail markets for farm produce in St. Louis are in a "deplorable, unsightly, and insanitary condition and are conducted in such a manner that they add to, rather than reduce, the cost of living, as they should and would do if conducted along business lines."

SPECIALTY MANUFACTURERS TO BANQUET.

The Chicago Auxiliary American Specialty Manufacturers' Association will hold its second annual dinner March 27, 1913, at six o'clock p. m., at Hotel Sherman, Chicago.

PUTS HIGH VALUE ON WILD WHEAT.

Professor Aaron Aaronson of the Jewish agricultural experiment at Haifa, Palestine, in a recent address before the Chicago City Club told of his discovery of a valuable variety of wild wheat. Exhaustive experiments have resulted in the production of a wheat from the wild variety with great hardiness and the richness of our domestic wheat. Professor Aaronson predicted that the new cereal would eventually supersede our domestic wheat as the staple of the world.

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the 15th of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

California.

SENATE BILL NO. 375.

By Mr. Juilliard, January 17, 1913.

Referred to Committee on Judiciary.

And

ASSEMBLY BILL NO. 477.

By Mr. Bowman, January 20, 1913.

Referred to Committee on Manufactures.

An act to regulate the sale of packages, cartons, cans, boxes, commodities and containers of all kinds, with the name and address of the original manufacturer thereof, providing for the enforcement of and penalties for the violation of the provisions of this act.

SENATE BILL NO. 788.

By Senator Boynton.

Same as Assembly Bill No. 966.

An act to provide for the indicating of the net quantity of food stuffs and stuffs intended to be used or prepared for use as food for human beings when sold or offered or exposed for sale in containers and providing penalties for violation thereof.

Referred to Committee of Judiciary.

SENATE BILL NO. 1247.

By Senator Birdsall.

An act to amend an act entitled "An act for preventing, etc." Section 27 provides: "No person shall sell or offer for sale food in package form unless the quantity of the contents be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

Referred to Committee on Public Health and Quarantine.

SENATE BILL NO. 1288.

By Senator Boynton.

An act to amend section 6 of an act entitled "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," in reference to placing the true name of manufacturer, jobber or seller on label.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 9.

By Mr. Canepa, January 13, 1913.

An act to regulate the receiving and keeping of food in cold storage and regulating the sale of said food and providing a penalty for the infringement and violation of said act.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 221.

By Mr. Schmitt, January 14, 1913.

To amend sections 9 and 16 of an act entitled "an act for preventing the manufacture, sale or transportation of adulterated, mislabeled, or misbranded foods and liquors, etc.," approved March 11, 1907.

Referred to Committee on Public Health and Quarantine.

ASSEMBLY BILL NO. 1252.

By Mr. Roberts.

An act prohibiting the destruction of foodstuffs, food products or food articles.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 1318.

By Mr. Bradford.

An act to amend the food law approved March 11, 1907, by adding section 27, which provides:

"No person shall sell or offer for sale food in package form unless the quantity of the contents is plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

ASSEMBLY BILL NO. 1319.

By Mr. Bradford.

An act amending section 6 of the act approved March 11, 1907, entitled, "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," and further defining mislabeling and misbranding.

Referred to Committee on Manufactures.

ASSEMBLY BILL NO. 1796.

By Mr. Inman (by request).

An act to amend section 3 of the food law approved March 11, 1907, so as to provide a standard for ice cream, fruit ice cream and nut ice cream.

Referred to Committee on Public Health and Quarantine.

Colorado.

SENATE BILL NO. 111.

By Mrs. Helen Ring Robinson.

A bill for an act preventing the manufacture, sale, storage or transportation of adulterated or misbranded foods and drugs, stating wherein misbranding of foods and drugs consists, regulating the slaughter of animals and their preparation for food, providing for the appointment of a food and drug commissioner, inspectors and analysts fixing their compensations, declaring penalties for violations of the laws, rules, regulations and standards, concerning foods and drugs and repealing a similar act approved March 7, 1907.

Referred to Committee on Medical Affairs.

SENATE BILL NO. 112.

By Senator Helen R. Robinson.

An act providing for the sanitation of bakeries, canneries, packing houses, slaughter houses, dairies, creameries, cheese factories, confectioneries, restaurants, hotels, groceries, meat markets, food producing establishments, and all other places where food is prepared.

Referred to Committee on Medical Affairs.

SENATE BILL NO. 210.

By Senator Bellesfield.

A bill for an act to prevent the preparation, manufacture, packing, storing or distributing of food intended for sale, or sale of food under insanitary, unhealthful or unclean conditions or surroundings, to create a sanitary inspection, to declare that such conditions shall constitute a nuisance, and to provide for the enforcement thereof.

Has passed the senate.

On general orders in the house.

SENATE BILL NO. 363.

Br. Mr. Robinson.

A bill for an act concerning the sale of food, to regulate the safe thereof, and to forbid and prevent discrimination in the sale of food.

On general orders in the house.

HOUSE BILL NO. 367.

By Messrs. Kennedy and Andrew.

An act providing for the sanitation of bakeries, canneries, packing houses, slaughter houses, dairies, creameries, cheese

factories, confectioneries, restaurants, hotels, groceries, meat markets, and all other food producing establishments, manufactories or places where food is prepared, manufactured, stored, sold or distributed, and vehicles in which food is placed for transportation; regulating health of operatives, employes, clerks, drivers and all other persons working on the premises who handle the material from which food is prepared or the finished product.

Referred to committee of whole without recommendation.

HOUSE BILL NO. 220.

By Mrs. Riddle and Mr. Goss.

An act creating the office of State Dairy Commissioner of the state of Colorado, defining the duties thereof, providing for means of fostering the dairy industry, regulating the production sale and shipment of dairy products and oleomargarine, and providing for the licensing of shippers of these. This bill would make the head of the Department of Animal Husbandry also the State Dairy Commissioner.

HOUSE BILL NO. 705.

By Mr. Persons.

A bill for an act to amend chapter 1 of the session laws of 1907, the same being an act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and repealing all acts or parts of acts in conflict therewith. The amendment consists in part in adding thereto section 12, which provides as follows:

"All foods and drugs offered for sale in package, bottles, cans or other containers shall have clearly stamped on the outside of such containers the net weight of the contents thereof and the exact composition of such foods or drugs if the same be composed of several different substances."

Referred to Committe on Merchandise and Manufacturing.

Connecticut.

HOUSE BILL NO. 937.

An act amending the act concerning the sale of food in package form and providing that no penalty shall be enforced under said act until the passage of a similar act by Congress.

Referred to Committee on Judiciary.

Idaho.

Legislature Has Adjourned.

SENATE BILL NO. 52.

By Senator Borden.

An act providing for the sanitary regulation of bakeries, confectioneries, canneries, baking houses, slaughter houses, restaurants, hotels, creameries, meat markets and other places used for the preparation for sale, manufacture, packing, storage, sale or distribution of food of any kind, and protection of the same against contamination or infection, and for the cleanliness of employes therein, and for the protection of water supplies used for domestic purposes.

Passed the senate and killed in the house.

SENATE BILL NO. 66.

By Senator Shepherd.

An act relating to weights and measures; prohibiting the use of false weights and measures and scales; defining certain duties of the state sealer of weights and measures, and fixing penalties for violation of the act.

Died in committee.

SENATE BILL NO. 78.

By Senator Borden.

An act to amend section 27 of chapter 184 of the laws of the state of Idaho, in reference to governing sale of meats.

Died in committee.

SENATE BILL NO. 126.

By Senator Borden (by request).

An act relating to the prevention of pollution of public water and ice supplies used for domestic purposes, and to preserve the purity of the water and ice of the state for the protection of the public health.

Passed senate and killed in the house.

HOUSE BILL NO. 177.

By Committees on Public Health.

An act to amend section 1398 of the revised codes of Idaho, relating to the practice of pharmacy.

Enacted into law.

HOUSE BILL NO. 181.

By Committees on Public Health.

To amend section 1400b of the revised codes of Idaho, relating to prescribing drugs to habitual users.

Died on senate calendar.

HOUSE BILL NO. 206.

By Committee on Public Health.

To amend sections 1, 2, 5 and 6 of chapter 196 of the session laws of 1911, and to add to said chapter 196 new sections to be known as sections 13 and 14. The act defines adulterations of drugs, confectionery, foods. In section 8, defining foods, it is provided that it shall be deemed adulterated "If it be sweetened by saccahrine or other artificial sweetner or contains any chemical preservatives." Ice cream, it is provided, must contain "at least 14 per cent butter-fat, and of fruit cream at least 12 per cent butter-fat; but no preservatives or fillers of any kind shall be used.

Died on house calendar.

HOUSE BILL NO. 242.

By Representative Oversmith.

An act to amend section 1119 of the revised codes of Idaho, defining duties of the State Dairy, Food and Sanitary Inspector.

Died in committee.

HOUSE BILL NO. 257.

By Lewis and McDermott.

An act relating to the use of the Babcock test in determining butter-fat in milk and cream.

Died in committee.

Indiana.

Legislature Has Adjourned.

HOUSE BILL NO. 80.

By Hon. W. W. Spencer, January 15, 1913.

A bill for an act to amend sections 3, 4, 5, 6, 7, 8 and 9 of an act entitled "an act concerning scales, weights and measures, providing penalties for the violation thereof and for the selling and offering for sale of articles below standard, weight or measure as approved March 6, 1911, and providing that the sale of certain commodities shall be by weight or measure, and declaring an emergency."

Passed the house. Sent to the senate and referred to Committee on Judiciary B.

Enacted into law.

Iowa.

SENATE BILL NO. 143.

By Mr. Robinson.

A net weight bill.

Withdrawn and Senate Bill No. 253 substituted.

HOUSE BILL NO. 33.

An act to establish legal weights and measures, to provide for inspection of same and placing the enforcement of the act in charge of the dairy and food department.

Amended to exclude packages of less than 10-ounce weight. Recommended for passage. Senate bill No. 45 is duplicate and this is now in the hands of Committee on Food and Dairy.

HOUSE BILL NO. 49.

An act relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein, and defining the duties of the state dairy and food commissioner in relation thereto.

Recommended for passage.

HOUSE BILL NO. 220.

By Mr. Halgrims.

To amend section 3, chapter 174 Laws of the 34th General Assembly, relating to the misbranding of foods, and requiring that foods in package form be plainly and conspicuously marked with the quantity of contents in terms of net weight.

Both bills referred to Committee on Food and Dairy.

Kansas.

HOUSE BILL NO. 926.

By Mr. Mulroy.

An act terminating the duties of the State Board of Health as prescribed in chapter 148 of the session laws of 1909 and

transferring same to the State Commissioner of Labor and Industry.

Referred to Committee on Health and Hygiene.

Maine.

HOUSE BILL NO. 29.

By Mr. Skelton.

An act to amend chapter 119 of the public laws of 1911 regulating the sale of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides and insecticides. The bill adds two new sections to the law section 23 providing as follows:

"For the purpose of this act an article of food in package form, if sold at a greater price than five cents, shall also be deemed to be misbranded if the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count. Provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made in accordance with section thirteen of this act, which shall not on the average reduce the weight, measure, or numerical count below that marked on said package. And further provided that the penalties of this act shall not be enforced on account of sale of food not branded in terms of weight, measure, and numerical count, purchased prior to January first, nineteen hundred and fourteen."

Referred to Committee on Agriculture.

Massachusetts.

SENATE BILL NO. 118.

An act relative to the manufacture, sale or exchange of confectionery deleterious to the public health.

Amended and passed to be engrossed.

SENATE BILL NO. 119.

An act relative to the sale of insecticides.

Leave to withdraw asked.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

Referred to Committee on Public Health.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

Referred to Committee on Public Health.

HOUSE BILL NO. 775.

An act relative to the sale of commodities by weight.

Passed to be enacted.

HOUSE BILL NO. 1160.

An act to regulate the manufacture and sale of fruit syrups.

Referred to Committee on Public Health.

HOUSE BILL NO. 1162.

An act relative to false stamping and labeling of receptacles containing articles of food.

Referred to Committee on Public Health.

Amended and engrossed.

HOUSE BILL NO. 1165.

An act to prohibit the adulteration of candy. This act amends section 6, chapter 213 of the Revised Laws so as to read as follows:

"Whoever, himself, or by his agent or servant, or as the agent or servant of another person, manufactures, sells or exchanges, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, any toys or confectionery, containing or coated wholly or in part with arsenic, talc, saccharin, glucose, ethereal flavors (unless declared to purchaser), iron rust, burnt umber, mineral in any form, fat substitutes for chocolates, wood or denatured alcohol, benzoate of soda, salicylic acid, boric acid or glue, shall be punished by a fine of not less than fifty nor more than one hundred dollars."

Referred to Committee on Public Health.

Michigan.

SENATE BILL NO. 86.

By Senator Murtha.

A bill providing for the protection of the public health and prevention of fraud and deception by prohibiting the sale, the offering for sale or exposing for sale or the having in possession with intent to sell, of adulterated or deleterious sausage, defining sausage and prescribing the penalty for violation thereof.

Referred to the Committee on Public Health.

SENATE BILL NO. 286.

By Senator Amberson.

Amendment to certain sections of the act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink. The amendments make it mandatory to label packages with the net weight or measure, or numerical count, as the case may be. However, reasonable variations and tolerations shall be permitted, as established and promulgated by the Dairy and Food Commissioner. It is also made compulsory that "Every article of food as defined in the statutes of this state shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, except where the parties otherwise agree, and shall be labeled in accordance with the provisions of the food and beverage laws of this state."

Referred to Committee on Public Health.

SENATE BILL NO. 326.

By Mr. Case.

A bill to define and fix the standard of purity for foods, beverages, condiments, confectionery and drugs in this state in prosecutions arising under the food, beverage and drug laws of the State of Michigan.

Referred to Committee on Public Health.

SENATE BILL NO. 341.

By Senator Weadock.

A bill to regulate the storage of food products, and to provide penalties for violation thereof.

Referred to Committee on Public Health.

Placed on general orders.

HOUSE BILL NO. 69.

By Representative Whelan, January 8, 1913.

A bill relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein and defining the duties of the State Dairy and Food Commissioner in relation thereto.

Referred to Committee on Public Health.

Minnesota.

SENATE BILL NO. 4.

By Mr. Fosseen.

A bill for an act to prevent deception in the sale of cold storage products, and fixing the punishment for violation thereof. The bill covers fish, oysters, poultry, eggs and butter.

Referred to Committee on Public Health.

HOUSE BILL NO. 128.

A bill for an act to amend section 1774, revised laws of Minnesota, 1905, so as to prohibit the misbranding of beverages.

Passed both branches of legislature.

Enacted into law.

HOUSE BILL NO. 191.

By Mr. Conley.

An act making it a misdemeanor to sell goods with a false stamp.

Referred to Committee on Commerce and Trade.

HOUSE BILL NO. 319.

By Mr. Dunn.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight or the net measure of the contents thereof, and to provide penalties and punishment for violations of this act.

Transferred to Committee on Public Health and Pure Foods.

HOUSE BILL NO. 894.

By Mr. Sanborn.

An act to amend the laws so as to prohibit "the use of any dye, harmless or otherwise, to color or stain a food in a manner whereby damage or inferiority is concealed" and listing such mineral dyes or coal-tar dyes as are permitted. When

a permitted color is used its presence must be declared on the label.

Referred to Committee on Public Health and Pure Food.

Missouri.

SENATE BILL NO. 124.

By Senator Carter.

An act amending section 11967, article 1, chapter 125, of the revised statutes of Missouri, 1909, increasing the standard weight of a half sack of flour from 48 to 49 pounds, and the weight of a quarter sack from 24 to 24½ pounds.

Favorably reported.

Montana.

Legislature Has Adjourned.

HOUSE BILL NO. 180.

By Mr. Rhodes.

A bill to regulate the sale of articles by weight, measure or count.

Passed the house.

Enacted into law.

Nebraska.

SENATE BILL NO. 72.

By Mr. Haarmann, January 17, 1913.

A bill for an act to repeal chapter 4, Session Laws of 1897, being sections 9859, 9860, 9861, 9862, 9863, 9864 and 9865 of Cobey's Annotated Statutes for 1911, regulating the manufacture and sale of vinegars.

Referred to Committee on Manufacturing and Commerce.

Indefinitely postponed.

SENATE BILL NO. 155.

By Mr. Hoasty.

An act making it unlawful for any person, firm, company or corporation to print, emboss or stencil or in any way to place the name of any other than his or their own name on such article as is manufactured by such person, firm or company or corporation any other name or title whether real or fictitious, placed upon any article manufactured than that of the person, firm, company or corporation so manufacturing.

Indefinitely postponed.

SENATE BILL NO. 239

By Mr. Haarmann.

A bill for an act to provide for the manufacture, sale and branding of vinegar.

Passed the senate.

Placed on house general file.

HOUSE BILL NO. 377.

By Mr. Frank C. Yates.

A bill to amend section 9825 of Colby's annotated statutes of the state of Nebraska for 1911, relating to misbranding of drugs.

Referred to Committee on Retail and Commerce.

Placed on general file.

HOUSE BILL NO. 384.

By Mr. Druesedow et al.

An act to make it unlawful "for any person, firm, association, corporation or co-partnership to store butter, eggs or other perishable food stuffs for a longer period than 90 days. Such food stuffs when so stored shall have thereon a plain, white wrapper with red letters and figures printed in clear, legible type, showing the date on which such food stuff was stored.

Referred to Committee on Manufactures and Commerce.

HOUSE BILL NO. 697.

By Representative Anderson.

Section 1 of this bill reads:

"It is hereby declared unlawful to sell or offer for sale any patent medicine, drug, stock food or stock medicine, or human food preparation on the container of which is printed, stamped or written any false or fraudulent or misleading statement as to the curative value of any such patent medicine or drug or stock food or stock medicine, or the food value of any human food product or preparation; or as to which any such false or fraudulent or misleading claims have been made by means of printed circulars or other printed matter or by advertising the same in any newspaper."

Referred to Committee on Medical Societies.

HOUSE BILL NO. 826.

By F. L. Bollen.

An act to create and maintain a food, drug, dairy and oil commission for the state of Nebraska, to define its powers and duties, to provide for the inspection of foods, drugs, dairy products and oils, etc.

Referred to Committee on Judiciary.

Nevada.

SENATE BILL NO. 81.

By Senator Chapin; February 18, 1913.

An act preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating the manufacture and traffic therein, and providing penalties for the violation thereof.

Referred to Committee on Education.

SENATE BILL NO. 96.

By Senator Chapin; February 18, 1913.

An act to amend an act entitled, "An act concerning and fixing weights and measures, etc." Section 18 is amended to make mandatory the labeling of package goods with correct statement of weight, measure or numerical count.

Referred to Committee on Education.

SENATE BILL NO. 118.

By Mr. Heffernan.

An act to repeal an act "concerning and fixing standard weights and measures and to regulate the sale of commodities or articles of merchandise according to such standards, and to provide fines, penalties and damages for the violation thereof, and for rules of evidence relating thereto; and to provide for the inspection of weights, measures and weighing devices, and for the enforcement thereof, and making an appropriation for the carrying out of this act," approved March 8, 1911.

Referred to Committee on Ways and Means.

SENATE BILL NO. 119.

By Mr. Heffernan.

An act to repeal an act entitled "An Act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, for regulating the traffic therein, providing penalties, and making an appropriation for the carrying out of this act," approved March 13, 1909.

Referred to Committee on Ways and Means.

New Hampshire.

HOUSE BILL NO. 167.

By Mr. Brennan.

An act establishing a standard of weights and measures.

Referred to Committee on Judiciary.

New Mexico.

SENATE BILL NO. 186.

By Mr. Bowman.

An act establishing weights and measures. Referred to Committee on State Affairs.

New York.

HOUSE BILL NO. 451.

By Mr. Willmott, January 22, 1913.

An act to amend the general business law in relation to the marking of canned goods and providing for placing on label date when packed.

Referred to General Laws Committee.

Ohio.

HOUSE BILL NO. 53.

By Mr. King.

A bill to amend section 7965 of the General Code, relating to the duties of the State Sealer of Weights and Measures.

Passed the house.

Enacted into law.

HOUSE BILL NO. 54.

By Mr. King.

A bill to amend section 6418-1 of the General Code, relating to articles sold by avoirdupois weight or numerical count.
Passed the house.

HOUSE BILL NO. 210.

A bill to amend section 375 of the General Code, relating to the duties of the State Dairy and Food Commissioner.
Passed the house.
In senate Committee on Agriculture.

HOUSE BILL NO. 418.

By Mr. Woodworth.

A bill relating to food, drink and flavoring extracts and labeling of same.
Referred to Committee on Dairy and Foods.

HOUSE BILL NO. 450.

By Mr. Thomas.

An act to amend section 13423 of the General Code relative to special jurisdiction of jurists, police judges and mayors by adding a sub-section 14 as follows: "The prevention of short weights and measures and all violations of the weights and measures law."
In committee.

Oklahoma.

HOUSE BILL NO. 336.

By Mr. Welty.

A bill entitled "an act to regulate the sale of non-intoxicating beverages, compound extracts, flavors or syrups; prohibiting the sale of non-intoxicating beverages to which has been added any quantity of certain specified drugs, providing penalties for the violation of this act and repealing all laws or parts of laws in conflict with same, and declaring an emergency."
Adversely reported.

HOUSE BILL NO. 686.

By Mr. Darling.

An act relating to the sale and distribution of food and drug products direct to consumers by non-residents of the state of Oklahoma, and defining the duties of the State Commissioner of Health in relation thereto.
This is a comprehensive vending bill.
Referred to Committee on Health.

HOUSE BILL NO. 697.

By Messrs. Dearing and Wright.

A bill entitled an act regulating the manufacture and sale of food, drugs and medicine and disinfectants, providing for a license and payment of a license in certain cases, and declaring an emergency. This bill would affect many interests.
Referred to Committee on Health.

HOUSE BILL NO. 731.

By Halsell, Durant, Dearing and Sharp.

An act creating the office of State Inspector of Weights, and providing for inspection of weights and measures.
In committee.

Oregon.

Legislature Has Adjourned.

SENATE BILL NO. 83.

By Senator Burgess.

Requires cold storage plants to make full reports to the state dairy and food commissioner as to the quantity of meats, eggs, etc., on hand and their value, and requiring same to be published.
Indefinitely postponed.

SENATE BILL NO. 194.

By Mr. Stewart.

A bill for an act to prevent branding of domestic merchandise as "imported."
Indefinitely postponed.

HOUSE BILL NO. 166.

A bill for an act to amend section 4900 Lord's Oregon Laws, the same being section 2, chapter 167 of the General Laws of Oregon for 1907, and relating to misbranding of food or articles which enter into the composition of food.
Amended to include drugs, passed and signed by governor.

HOUSE BILL NO. 247.

By Mr. Stranahan.

A bill for an act to regulate the sale of artificially bleached flour within the state of Oregon. Section 1 reads:
"It shall be unlawful for any person, firm or corporation to sell, or offer to sell, any artificially bleached flour in this state, for use and consumption as food, without plainly labeling the sacks or other containers in which such artificially bleached flour is sold, or offered for sale, in such manner as to give plain notice to the purchaser of the character of the flour."
Withdrawn.

Pennsylvania.

SENATE BILL NO. 5.

By Mr. Gerberich.

An act relating to food, providing for the protection of the public health, and the prevention of fraud and deception, by prohibiting the manufacture or sale, the offering for sale or exposing for sale, or the having in possession with intent to sell, of adulterated, misbranded or deleterious foods, and of foods short in weight or measure.
Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 6.

An act for the protection of the public health by providing for the regulation and control of the sanitary conditions surrounding the preparation, handling, storage and serving of foods in hotels, restaurants and dining cars; defining hotels, restaurants and dining cars; imposing certain duties upon the dairy and food commissioner in reference to this act; and providing penalties for violation of same.
Referred to Committee on Public Health.

SENATE BILL NO. 7.

An act relating to non-alcoholic drinks, defining same and prohibiting the manufacture, sale, offering for sale, exposing for sale, or having in possession with intent to sell, of any adulterated or misbranded non-alcoholic drinks.
Referred to Committee on Public Health and Sanitation

SENATE BILL NO. 8.

An act for the protection of the public health and the prevention of fraud and deception in the manufacture, labeling or sale of milk products; defining such milk products, fixing the standard thereof, and providing penalties for the violation of the provisions of the act.
Referred to Committee on Public Health.

SENATE BILL NO. 9.

An act for the protection of the public health and the prevention of fraud and deception, by regulating the sale of cold storage poultry, game, eggs and fish, providing penalties for the violation thereof, and providing for the enforcement thereof.
Recommended for passage.

SENATE BILL NO. 10.

By Mr. Gerberich.

An act to amend an act approved May 11, 1911, entitled, "an act to provide for appointment of county and city inspectors of weights and measures, providing for their compensation and expenses, prescribing their duties, prohibiting vendors from giving false or insufficient weights and fixing the penalties for violation of the provisions thereof," by regulating the appointment and compensation of the inspectors, extending their powers and duties and changing the penalties for violation of said act.
Referred to Committee on Judiciary General.

SENATE BILL NO. 11.

By Mr. Gerberich.

A bill defining commodities and regulating sale thereof.
Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 12.

An act supplementary to an act entitled "An act for the protection of the public health, by prohibiting the sale, offering for sale, exposing for sale, or having in possession with intent to sell, of eggs unfit for food as therein defined, and prohibiting the use of such eggs in the preparation of food products; providing penalties for the violation thereof, and providing for the enforcement thereof," approved March 11, 1909, providing for the denaturing by kerosene of all eggs unfit for food, within the meaning of said act, and providing penalties for the violation thereof.
Passed senate and second reading in house.
Placed on postponed calendar.

SENATE BILL NO. 280.

By Mr. Gerberich, February 17.

An act for the protection of the public health and providing that hotels, restaurants, and other public eating places shall not employ helpers having communicable diseases, and further stipulates to what use utensils in the kitchen and dining room shall be put.

Referred to Committee on Public Health and Sanitation.

HOUSE BILL NO. 53.

By Mr. Gans, January 21.

An act regulating the sale of certain food that shall have been kept in cold storage.

Referred to Committee on Public Health and Sanitation.

Postponed on third reading.

HOUSE BILL NO. 667.

By Mr. G. K. Young, February 13.

An act to amend the act approved May 29, 1901, entitled "An act to prohibit the manufacture and sale of oleomargarine, butterine and other similar products when colored in imitation of yellow butter, to provide for license fees of manufacturers and sellers, and to regulate the sale and manufacture of these products when not colored in imitation of yellow butter.

Referred to Committee on Public Health and Sanitation.

Rhode Island.

HOUSE BILL NO. 24.

By Representative Baldwin, January 14, 1913.

An act regulating the sale of food products.

Ordered to table until appointment of committees.

Referred to Committee on Judiciary.

HOUSE BILL NO. 117.

By John H. Richards.

An act amending section 6 of chapter 183 of the general laws so as to read:

Section 6. A drug or an article of food, or an article which enters into the composition of food, shall be deemed to be misbranded:

First. If the package containing it, or the label on such package shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, or if the same is falsely branded as to the state, territory, or country in which it is manufactured or produced, or if such article is preserved or packed in tin can, glass or earthen jar or vessel has not thereon plainly stamped or marked the day, month and year when such article was placed therein, or where said tin can, glass or earthen jar or vessel is relabeled or recovered and the label or cover thereof shall fail to have a statement of said relabeling or recovering and the date when such article was placed therein.

Referred to Committee on Judiciary.

South Dakota.

Legislature Has Adjourned.

HOUSE BILL NO. 294.

By Mr. Newton.

A bill for an act to enlarge the duties of the Food and Drug Commissioner, and providing for the sanitation and labeling of foods.

Enacted into law.

HOUSE BILL NO. 295.

By Mr. Newton.

A bill creating a food and drug department for the state of South Dakota to be in charge of Food and Drug Commissioner, and providing for assistants, etc.

Enacted into law.

Tennessee.

SENATE BILL NO. 152.

An act to prevent frauds in the measure or measurement of articles sold in Tennessee.

Referred to committee.

SENATE BILL NO. 530.

By Mr. Crawford, February 21, 1913.

An act to amend sub-section 3 of section 4 of chapter 297 of the acts of 1907, relating to food, to read as follows:

"If in package form, the quantity of the contents be not conspicuously, plainly and correctly marked on the outside of the package in terms of weight, measure or numerical count provided, that reasonable variations shall be established by rules and regulations to be promulgated by the State Pure Food and Drugs Inspector; and provided, further, that said variations shall be made uniform with similar variations established by the United States Department of Agriculture whenever said department shall establish same."

Referred to committee.

Texas.

SENATE BILL NO. 44.

By Mr. Gibson.

Reported from committee with adverse majority and favorable minority.

and

HOUSE BILL NO. 19.

By Mr. Morris.

A bill to be entitled "an act to prevent fraud upon the public by requiring manufacturers to place their own name and addresses upon manufactured articles, together with a statement of the material or materials used." The act applies to any "article or commodity that enters into commerce."

Adversely reported.

SENATE BILL NO. 357.

By Mr. Townsend.

An act to establish standards of weights and measures in the state of Texas, to create the office of Commissioner of Weights and Measures, to prescribe his duties, etc. The bill contains a net weight clause requiring containers to be marked with net weight or numerical count, with reasonable variations.

Favorably reported.

SENATE BILL NO. 426.

An act to prohibit the sale or exchange, to children or minors, of any beverage syrup, mixture, or compound in the preparation of which caffein or extracts containing caffein have been used, and fixing a penalty for violation of the act.

HOUSE BILL NO. 205.

By Mr. Morris.

An act to prohibit and prevent the use of benzoates and saccharin and mixtures containing benzoates and saccharin, in the preparation of food and beverage compounds.

Adversely reported.

HOUSE BILL NO. 316.

By Mr. Morris.

An act providing for the licensing of the sale or exchange of any beverage, syrup, mixture or compound in the preparation of which caffein or extracts of caffein have been used; prohibiting their sale or exchange to minors and fixing penalties.

Adversely reported.

Utah.

Legislature Has Adjourned.

SENATE BILL NO. 39.

By Mr. Williams.

General food and drugs bill, which includes incorporation of the Federad Food Law with the addition of the provisions that foods shall contain no habit-forming ingredients; that foods sold in package form shall be labeled with correct weight and measure; prohibits mis-statements relative to foods in labeling and advertising; provides for baking powder containing salts or compounds of alum shall be labeled alum.

Passed both branches of the legislature.

HOUSE BILL NO. 24.

By Mr. Monsen. (By request.)

This bill provides that "Any person, firm, company, association or corporation, foreign or domestic, doing business in the State of Utah and engaged in the business of buying milk, cream or butter fat for the purpose of manufacture, or of buying poultry or eggs for the purpose of sale or storage, that shall for the purpose of creating a monopoly or destroying the business of a competitor, discriminate between different sections, communities, localities, cities or towns of this State by purchasing such commodity or commodities at a higher price or rate in one section, community, location, city or town than is paid for the same commodity by said person, firm, company, association or corporation in another section, community, locality, city or town after making due allow-

ance for the difference, if any, in the grade or quality, and in the actual cost of transportation from the point of purchase to the point of manufacture, sale or storage, shall be deemed guilty of unfair discrimination which is hereby prohibited and declared to be unlawful but prices made to meet competition in such locality shall not be in violation of this act

Enacted into law.

Vermont.

Legislature Has Adjourned.

HOUSE BILL NO. 476.

An act relating to the sale of commodities, being a net weight bill introduced as a substitute for House Bill No. 89.

Referred to committee.

House bill No. 564 substituted for No. 476 and all killed.

West Virginia.

Legislature Has Adjourned.

HOUSE BILL NO. 353.

By Mr. Farnsworth.

A bill to prevent the manufacture or sale of adulterated or misbranded or poisonous or deleterious foods in the state of West Virginia.

Referred to Committee on Immigration and Agriculture.

Died in committee.

Wisconsin.

HOUSE BILL NO. 306.

By Mr. Hull.

A bill to direct the industrial commission to establish a system of direct marketing, and making an appropriation.

Referred to Committee on Agriculture.

HOUSE BILL NO. 393.

By Mr. Axel Johnson, February 13.

A bill to amend section 1665 of the statutes, relating to dry commodity standards.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 627.

By Mr. Rosa.

To amend Section 1791n-1 and 1791n-4 of the statutes, relating to the restraint of trade in dairy products; to amend subsection 3 of Section 1494aa and Section 1494ac of the statutes, relating to the Babcock milk and cream test; to amend Section 4601a of the statutes, relating to canned goods; to amend subdivision (12) of Section 4601-4a of the statutes, relating to rice, and providing a penalty.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 754.

An act to amend section 4601-1a of the statutes, relating to the sale of syrups, molasses, glucose mixtures, and maple syrup mixtures.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 758.

By Mr. Hurlbut.

An act to amend section 4601aa of the statutes, relating to the branding of foods. This bill requires the net weight or numerical count of contents to be placed on package goods, also the name and address of manufacturer, packer or dealer. Reasonable variations are provided for in stating contents.

Referred to Committee on Public Welfare.

Wyoming.

Legislature Has Adjourned.

SENATE BILL NO. 6

By Mr. Chrisman.

A bill to amend sections 2, 8, 10 and 11 of chapter 104 of the session laws of 1911, and relates to the adulteration of drugs, confectionery and foods.

Enacted into law.

OLEO TAX COMPROMISE ACCEPTED.

Just prior to his retirement from his position as secretary of the treasury on March 4, Mr. MacVeagh issued an order accepting the offer of compromise in the revenue tax cases involving oleomargarine, to which several prominent Chicago oleo manufacturers were parties. The trouble grew out of a contention that certain large quantities of oleomargarine were artificially colored and accordingly subject to the 10 cents per pound tax. The manufacturers of the product contended that they were not artificially colored, but that the color was natural to the ingredients, and therefore the tax should be that for uncolored oleo products, namely one-fourth cent per pound. There was a difference between the two taxes in the aggregate of about a million dollars. Commissioner Cabell, of the internal revenue department, after investigation of the case recommended that the compromise offered by the packers in which they agreed to pay $101,100 in settlement be accepted.

In a statement made to the press in regard to these cases Mr. MacVeagh is quoted as saying:

"These cases were not fraud cases. No fraud was charged by the government, no fraud was committed, and no fraud, therefore, was compromised.

"There are eleomargarine cases and oleomargarine cases. Those of which the public has heard most are fraud cases—cases in which the oleomargarine law was fraudulently evaded. The cases in question, however, are not in that category."

Mr. MacVeagh then entered into a technical explanation of the questions involved in the cases. He said the manufacture of two kinds of oleomargarine is permitted by law.

"One kind may be artificially colored, as may butter and cheese," he continued. "This kind must pay a tax of 10 cents a pound. The other and usual kind is taxed at a quarter of a cent a pound—9¾ cents less—and must not be artificially colored.

"It may be naturally colored—may have what color naturally inheres in its permitted ingredients. There is, therefore, a constant effort to secure natural color in the ingredients. This effort is, of course, entirely legitimate enterprise and within the law.

"It happens that cottonseed oil is one of the chief ingredients in oleomargarine, and also that this oil in its crude state is colored. In the process of refining cottonseed oil for use in oleomargarine, however, the color has been lost, at least in any process not too expensive to be commercially available. Thus the problem of refining cottonseed oil without sacrificing color, by a process commercially available, has been and is to the fore.

"Now an Ohio chemist claims to have invented a method that solves the problem, and an oil company in Louisville, not an oleomargarine company, used this invention, and in 1911 produced an oil with some color that they claimed to be natural. This oil was offered to oleomargarine manufacturers.

"The oleomargarine people brought the oil to the attention of the bureau of internal revenue. The oil then was tested for many weeks by the chemical laboratory of the bureau, by the laboratories of the oleomargarine manufacturers, and by private laboratories. It was also tested for sulphur continuously by the bureau of animal industries of the agricultural department. No one could find any artificial color."

Before a final decision had been given by the government experts, Mr. MacVeagh said some manufacturers of oleomargarine, those connected with the cases, began to use the disputed oil, "apparently certain of its legality."

The oil had been openly used in larger or smaller quantities for some months, he said, before the bureau chemists came to the conclusion that the color was artificially produced by the use of sulphur.

"When this was announced," he asserted, "all manufacturers of oleomargarine at once quit using the oil. It must be understood that the manufacturers of oleomargarine had nothing to do with the manufacture of the oil. They were only purchasers of it, and knew nothing about it which the government did not know.

"It also should be understood that even now the contention of the government that the oil is artificially colored is disputed.

"The question between the oleomargarine manufacturer and the bureau of internal revenue was not one of fraud. It was a question of technical liability."

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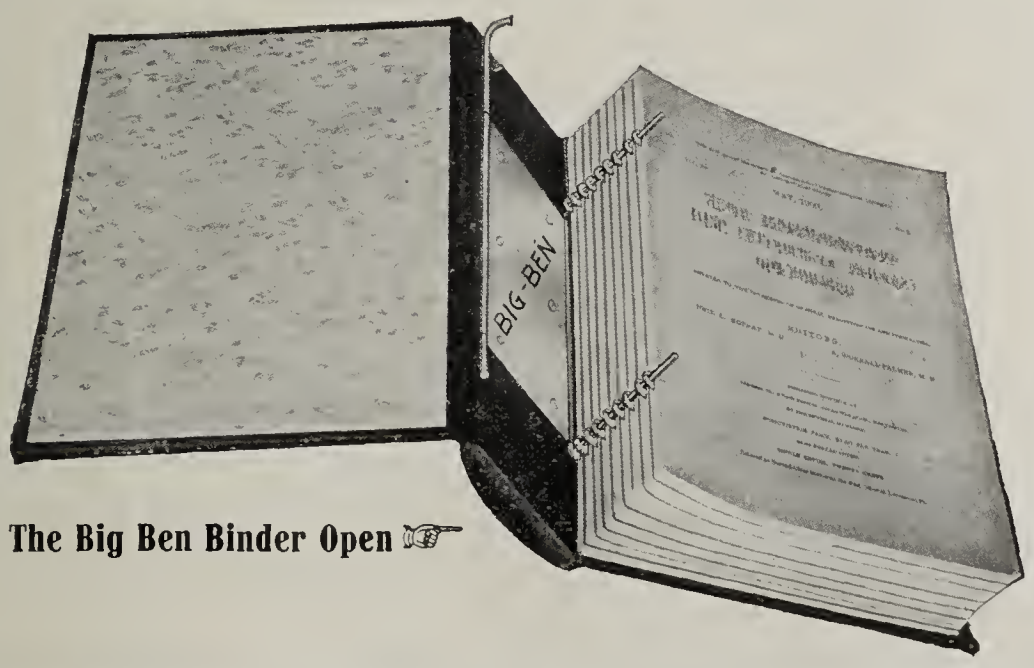
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THE AMERICAN FOOD JOURNAL



VOLUME EIGHT
NUMBER FOUR

Chicago, April, 1913

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Need of Greater Sanity in Legislation

THERE is always a tendency to radicalism to be contended with whenever any reform is attempted. Lawmaking bodies are as prone to ill-considered action as are individuals—sometimes it seems more so than the majority of intelligent people.

An evidence of this tendency to hasty action on the part of various legislatures is apparent in recent attempts to pass honest advertising bills. No one will question the need for a strong curb of some kind on those who designedly try to deceive the public as to the quality or character of their goods, through false and misleading statements in their advertising matter. However, vaguely worded laws, or those having such unreasonable and drastic provisions as to make them utterly impracticable and impossible of enforcement, will serve no good and cause only unnecessary trouble and expense to those who may be so unfortunate as to come within their provisions.

A few states have already enacted "pure advertising" laws. Massachusetts enacted such a law last year and we are informed that a special corporation has recently been organized in Boston to enforce it, the idea being to thus limit the liability of members, who are mostly retail merchants, in the case of counter suits for damages.

A short time ago the Maine legislature passed a bill designed to prevent false and misleading advertising. Fortunately Maine has a level-headed governor and when the measure reached his hands for signature he declined to affix his name to it. In his veto message he made some pointed remarks on this tendency toward drastic, ill-advised legislation, which are equally applicable to other lines than advertising, and are worthy the consideration of all legislators. Governor Haines in this veto message said:

"I herewith return bill 'An Act Relative to Untrue and Misleading Advertisements' without my approval.

"While in full sympathy with legislation against all forms of fraud upon the purchasing public, I am convinced the bill as enacted is too drastic a departure from the usual type of criminal statutes against fraudulent practices, in that neither fraudulent intent nor actual injury to anyone is regarded as an element of the crime which is created.

"The cases in which criminal intent may be disregarded in the framing of criminal statutes are those in which imperative public necessity in particular instances overrides the comparatively slight risk of individuals engaging in a particular business or avocation, such as the liquor law, the pure food law, the game laws and similar instances where the acts are per se injurious to the public and public policy requires the citizen to act at his peril. I cannot believe that public policy requires that the business world should be subjected to this hazard of criminal liability for acts which the most honorable and careful man might occasionally commit without harm to anyone. Every statement of fact, however innocently made, and though made with the best and most convincing reasons for believing it to be true, if actually either untrue, 'deceptive or misleading,' is under the ban, however trivial or harmless, and regardless of any injury to anyone.

"None of the expressions 'knowingly,' 'willfully,' 'maliciously,' 'with intent to defraud,' or 'with intent to deceive,' all of which are the basis of the most trivial penal statutes against fraud, are included in this act. The statute is aimed at 'untrue and misleading advertisements,' such as any publication in newspapers, books, notices, postals, circulars or other printed or written matter.

"The American people are pre-eminent in their genius for advertising, and it is a natural instinct for all men having merchandise to sell to represent it in as favorable a light as possible, and those who buy generally believe that they are getting a good trade, or they would not purchase. Sometimes after purchasing, merchandise looks different to them than before, and the desire to possess it lessens. How natural then to say they were deceived or misled at the time of purchase. They may have been deceived by the seller, and they may have been deceived by their own hasty judgment. It is hard to overcome natural laws by legislative enactment, especially those laws which seem to be distinctive in our nature, and it seems to me most dangerous to undertake to regulate or treat instinct by statutory enactment.

"Where could a jury be found that would convict, or a court that would impose sentence—which might be $1,000 fine, or two years' imprisonment, or both, under this statute—for a publication that might be construed as 'misleading?'

"There is a popular clamor to regulate everything by statutory law, which is very strongly offset by the popular impression that such laws will not be enforced, or that they are easily nullified. Such legislation has a tendency to weaken respect for all laws.

"If this statute is intended to punish everybody who in the earnestness and enthusiasm of his business might advertise in a way that might be claimed to be 'misleading,' the mercantile part of the community, as it seems to me, would

be subjected to all sorts of spite prosecutions, and if the act is really intended to be enforced, I should think it would call for the establishment of a new court in every county, and additions to the jails. If, on the other hand, the object of the statute is to punish for fraud and deceit in the selling of goods, I would recommend that the statutes we already have upon that subject be examined, and if not sufficient to cover all possible contingencies, which may arise, that such an amendment be introduced as will meet all reasonable demands of the community upon this subject."

Although most states now have laws covering pretty thoroughly foods and matters relating thereto, this is still a favorite subject for attempted legislative action. It is necessary for those interested in the enactment of good laws and their honest and effective enforcement to watch constantly so that all kinds of bills relating to foods, labeling and sanitation are not passed with provisions the enforcement of which would redound to the good of no one and prove only a source of continual annoyance.

We want and must have good laws to protect public interest, and restrain unscrupulous people, but freak legislation such as somehow finds its way into every legislature, state and national, should be rigidly suppressed, if necessary and desirable measures are to be given the consideration and respect to which they are entitled.

CALVES AND BEEF.

THE discussion as to the cause of the high prices of meat goes on apace, and bids fair to be a head-liner subject for some time to come. So long as the question is asked by consumers, the meat packers, economists, statistic fiends and others will endeavor to answer it. One very logical reason for the high cost of beef that has been given much publicity lately is that too many calves are killed. Now anyone who knows anything at all about beef knows that it takes calves to produce it. Without calves there cannot be beef. Very simple. However, if the calves are not killed there won't be any veal to eat, and some people would think that no veal is worse than high beef.

Now while it is true that too many calves are killed, and we would be just as well off—probably better off—if we didn't have so much veal to eat, it is also true that the country is not raising as many calves as formerly. We don't believe there is any deliberate "race suicide" among the bovines, but economic reasons seem to contribute to a very materially lessened birth rate.

No sane man with the full quota of business instinct possessed by the majority of American people, is going to raise beef which takes three or four years to bring to a marketable stage, when he can raise something else on his lands that will bring him in just as much money in a half or third or less period of time.

It wasn't so very many years ago that there were hundreds of thousands of acres of free range on the western prairies and upon these ranges thousands upon thousands of head of cattle roamed with a merely nominal cost to owners. The annual roundup with its attendant branding operations constituted the chief labor expended in the range cattle industry. Those days have forever passed, however, and today our hundreds of thousands of emigrants from other lands are occupying these range sections and cultivating them as farms, and cattle raising on a large scale is no longer possible on the restricted areas now available to each farmer. He has had to diversify his operations and in the evolution thus accomplished we find the great big reason for the scarcity of calves.

Now of course we can pass laws to prevent the slaughter of calves and we have no doubt that would help some to ultimately relieve the high cost of beef, but you can't restore the old ranges, and you can't compel people to raise cattle if other farming operations are more convenient and perhaps just as profitable to them. We cannot see that there is any very cheerful prospect for beef prices getting very materially lower in years to come, unless there is a readjustment of industrial and economic conditions all along the line, and we hope the whole burden of the situation will not be laid upon the calves.

CHIEF ARTICLES OF DIET AND THEIR INCREASED COST.

ACCORDING to reports of Government statistics two-thirds of the expenditure for food by the average workingman's family goes for fifteen articles of food. These are: Potatoes, sugar, bacon, ham, milk, chicken, butter, flour, corn meal, eggs, lard, pork chops, rib boast, sirloin steak and round steak. Thirteen of these articles were shown by the figures to have been sold at retail prices from 1 to 20 percent higher in 1912 than in 1911. This report of the Department of Commerce and Labor is based upon reports from thirty-two states. It was shown that potatoes and sugar were the only two items to decline in price, the former dropping 26.1 below the price prevalent in 1911, and sugar 7.7 per cent lower than in 1911. The following articles showed an increase over 1911: Bacon, 0.1; ham, smoked, .7; fresh milk, 3.6; hens, 6.1; creamery butter, 6.2; wheat flour, 6.9; corn meal, 10.6; fresh eggs, 11.1; lard, pure, 12.4; pork chops, 13.7; rib roast, 17.8; sirloin steak, 18.5; round steak, 20.8.

Comparing the prices, the retail price to the consumer, on these fifteen articles of food with the retail prices obtained for the ten-year period 1890 to 1899, inclusive, brings out the fact that the per cent increase was a tremendous one. The following table shows the per cent increase over prices from 1890 to 1899, inclusive:

Article.	Per cent increase.
Sugar, granulated	6.1
Butter, creamery	34.0
Milk, fresh	35.2
Flour, wheat	35.4
Potatoes, Irish	46.0
Eggs, strictly fresh	47.8
Lard, pure	57.1
Sirloin steak	62.7
Hens	59.3
Ham, smoked	63.4
Rib roast	63.6
Corn meal	64.4
Round steak	86.9
Bacon, smoked	100.3
Pork chops	105.4

The great leap in price to the consumer of round steak, bacon and pork chops, three articles that were considered too cheap and gross for the rich man's table, makes these articles delicacies now. A further study into the advance of retail prices for foodstuffs discloses the fact that in Boston prices on Aug. 15, 1912, compared with prices on Aug. 15, 1911, showed an advance of 24.6 per cent for sirloin steak, 22.4 per

cent for round steak; Chicago, an advance of 19.8 per cent for sirloin, 33.1 per cent for round steak, 21.9 per cent for pork chops; Cincinnati, 31.9 for sirloin, 22.9 for round steak and 25.2 for pork chops. In Cincinnati the per cent advance on bacon, ham, lard, hens, flour, corn meal, eggs and butter was greater than in any of the large cities comprised in what is known as the north central division, which includes Chicago, Detroit, Indianapolis, Kansas City, Milwaukee, Minneapolis, Omaha and St. Louis. In Chicago bacon advanced 6.5 per cent over 1911; ham, 11.1; lard, 10.2; hens, 19.8; flour, 3; corn meal, 3.4; eggs, 4.5; butter, 4; Irish potatoes dropped 27.2 per cent in Chicago from 1911 and sugar dropped 10.3 per cent.

All of which is but added evidence of the reality of the great increase cost of living that is still going on.

FOR BETTER SANITATION IN DELAWARE CANNERIES.

ALONG the line of more perfect sanitation in canneries there is being put forth efforts at legislation on the subject in some of the leading canning states. In the Delaware legislature there has been introduced a bill on this subject, which it is declared has every chance of becoming a law, and in that event will be rigidly enforced. *The Canning Trade* of Baltimore, Md., thus epitomizes the provisions of the proposed law:

"We have only praise to say for it; they are working along the correct lines, and that is compulsory sanitary measures; putting all factories on the same basis, and with proper penalties for failure to observe the regulations. One regular cannery inspector will be appointed, and in the active season an assistant will be put on; these men will point out where improvements are demanded, report conditions to the board of health, and that body will allot a sufficient time to make these changes. Upon failure to do so they will be fined, and warned a second time, and if not made then, a second fine will be levied, and the third and last warning issued. If then the corrections be not made, and the entire plant put into acceptable condition to the board of health, the factory will be closed by the state."

EVERY FOOD HAS ITS DAY.

TO paraphrase a well known saying it might now be remarked that "Every Food Has Its Day," although canned foods people seem to think their products are so important as to require a whole week. There is Apple Day, Orange Day, Salmon Day, Guava Day, and a host of others. One of the first of these efforts designed to focus attention upon a given product had to do with raisins, and Raisin Day has been observed for several years. This year the appointed date for doing full justice to this fruit is April 30.

Fresno, California, is the center of the raisin industry of the United States and the Fresno Chamber of Commerce, directs the movement, prominent raisin growers and packers assisting. The day is made a gala occasion in Fresno, and the celebration attracts crowds from all nearby points. Railroads observe the day very generally by serving raisins in a variety of forms in the dining cars and at the present time on Raisin Day grocers of most large cities throughout the country make special efforts to sell this fruit of the vine. Raisins are one of our most nutritious dried fruits, and most of us could eat more of them with benefit to our health.

NEW FOOD COMMISSIONER IN SOUTH DAKOTA.

THE governor of South Dakota has appointed Guy G. Frary, M. S., to the office of State Food and Drug Commissioner to succeed Dr. A. N. Cook, who had held the office since 1909.

Mr. Frary is a young man thirty-two years of age, but has education and experience which would seem to fit him exceedingly well for the duties of his present office. He graduated from Morningside College, Sioux City, Ia., in 1902, and while taking graduate work at that college at the same time was assistant in chemistry. In 1903-4 he became a fellow in chemistry at the University of Iowa.

The subsequent three years Mr. Frary was head of the department of science in Ft. Worth University,



MR. GUY G. FRARY, M. S.

Ft. Worth, Texas, and at the same time taught chemistry in the Ft. Worth University Medical School. Returning to the University of Iowa he became an instructor there for a year and in 1909 was honored with the degree of M. S.

The appointment of Dr. A. N. Cook as Food and Drug Commissioner of South Dakota left a vacancy in the chemistry department of the University of South Dakota which Mr. Frary was called to fill.

During the past two years Mr. Frary performed considerable work for the food and drug commission in the capacity of chemist and also as analyst for the commission. He was thus closely associated with Dr. Cook during the time he was commissioner and is accordingly familiar with the requirements of his position.

DATE SET FOR NATIONAL CONVENTION.

ANNOUNCEMENT is made by Sec. W. M. Allen, of the American Association of Food, Dairy and Drug Officials, that the executive committee has named June 16 as the date for convening the seventeenth annual meeting of the association. The convention will be held at Mobile, Alabama. The official program and other details in reference to the convention will be published in the May number of THE AMERICAN FOOD JOURNAL.

New Assistant Secretary of Agriculture

ANNOUNCEMENT has been made of the appointment of Dr. B. T. Galloway, who since 1888 has been Chief of the Bureau of Plant Industry, United States Department of Agriculture, to the office of assistant Secretary of Agriculture. Dr. Galloway is one of the best known and most efficient experts in his department in the United States and will give able support to Secretary Houston as his assistant. A short biography of Dr. Galloway follows:

Dr. Beverly T. Galloway was born at Millersburg, Missouri, in 1863. Soon after the close of the Civil War his parents moved to Columbia, in Boone County, where he remained until 1887.



DR. BEVERLY T. GALLOWAY.

He went through the public schools of Columbia, taking the usual courses, and then entered the drug business, becoming a registered pharmacist for the state of Missouri. After four years in the drug business Dr. Galloway felt that it did not offer a sufficient promise for a broad field of usefulness, gave up the work and went out to the horiticultural grounds of the Agricultural College of the University of Missouri and took up practical work. In 1882 he entered the Agricultural College at Columbia, completing the course with the degree of B. Agr. Sci. While attending college he spent all his spare time, including vacations and almost every holiday, in practical work in the horticultural department, especially in green house work. In 1884 he made a collection of plants, woods, etc., for the New Orleans Exposition and spent eight or nine months at the Exposition looking after the various lines of work in the horticultural department of the Exposition.

When he returned to the university he was placed in charge of the experimental and instructional green house used in conenction with the botanical and horticultural work of the university, where he remained until 1887, in the meantime taking special courses in chemistry, biology and the languages.

In 1886 a vacancy occurred in the United States Department of Agriculture for an assistant systematic botanist to assist the botanist of the department in systematic work. Commissioner Coleman offered the place to Dr. Galloway, but he declined it for the reason that he had started out to make plant pathology his life work and did not believe that there was any special field at that time in systematic botany. The science of plant pathology at that time was new. Dr. Galloway was doing practically the only work in plant pathology that was being done west of the Mississippi River. Dr. Burrell of the University of Illinois and others were very helpful to him in this matter. From time to time he published articles on plant diseases which were found helpful to the agricultural interests of Missouri to such an extent that the Agricultural Society of that state furnished a small fund to enable him to carry on work within the state. This it is believed is about the first appropriation that was made west of the Mississippi River for plant pathological work.

In 1887 there was organized in the Department of Agriculture a Section of Mycology. Commissioner Coleman remembering the reasons for Dr. Galloway's declination of the first position called his attention to the matter and offered him a position in the new section. This position was under civil service, so Dr. Galloway took the examination and was appointed as an assistant in that year. In 1888, the chief of the section resigned to accept a position in charge of botanical work in Tennessee, and Dr. Galloway was made chief of the section. In 1889 the section was raised to the dignity of a division, with Dr. Galloway as chief. Later the name of the division was changed to the Division of Plant Pathology and Physiology, and continued to grow until 1902, when with a number of other divisions of the department it served as a nucleus for the Bureau of Plant Industry. At the time the Bureau of Plant Industry was organized in 1902 the number of employees was less than 300, with an annual appropriation of about $200,000. Under Dr. Galloway's guidance the Bureau of Plant Industry has steadily increased until it now has a force of more than 2,500 employees with annual appropriations exceeding two and one-half million dollars.

In 1902 the University of Missouri conferred upon Dr. Galloway the honorary degree of LL.D. At this time the same degree was conferred upon "Mark Twain," James Wilson, former Secretary of Agriculture, Ethan A. Hitchcock, former Secretary of the Interior, and the Chancellor of the University of St. Louis.

Manufacturing Under Ideal Conditions

By C. B. Whitford.

RECENTLY a man interested in the manufacture of pure food products went through the factory of the Shredded Wheat Company at Niagara Falls, N. Y. When he came out he was asked what he thought of the place.

"It reminds me," he replied, "of the days when I was a boy and used to visit the home of a maiden aunt. Now this aunt of mine was a very lovely woman and she did many little things to make me feel that I was a welcome guest. All went very well with me until it came bedtime. Of course, I was put in the best room in the house. I was so uncomfortable in that room I was afraid to go to sleep for fear I would disarrange the bed. Everything in that room was so spick and span and so orderly I was really glad to get out of it.

"I was reminded of that room while going through the shredded wheat factory, where I found every room and every part of the great establishment oppressively clean and orderly."

How they manage to keep such a big workshop so neat all the time passes the understanding of most people who visit the place. There is not a corner in the factory where a group of particular ladies might not give a tea party. The place is not simply neat and clean and orderly as these terms are generally understood, but the shop appears to be "all dressed up" all the time.

As a matter of fact, the extreme neatness that prevails in the establishment, and sundry features respecting the welfare of the workers, are so conspicuous as to distract the attention of one who visits the factory to study the process of manufacture. Indeed, two trips through the establishment are necessary; one to see the place and study the esthetic side, and one to study the purely manufacturing operations.

When the matter has been carefully considered, the problem of extreme sanitation, so well solved, is not as difficult as it appears to be, for, in the first place, the building was made to be kept clean. The promoters of the enterprise had in mind just such results as have been accomplished when the building was erected. The inspiration behind the architectural work contemplated no mere art features for art's sake. Rather, the plan was to create a building of plain, simple construction throughout, that would readily adapt itself to the essential purpose of cleanliness.



At some sacrifice of the advantages that come as a natural consequence of location near the railroad tracks, the building site was selected in the residence district, far away from the smoke and grime of railroads and factories. As a compensation, the cost of maintaining a clean building was thus materially reduced. The building occupies ten acres of ground, with a frontage of nine hundred feet on the upper Niagara River. There is a floor space in the building of five and one-half acres. Light is everywhere abundant, and no dark corners are to be found where germs may thrive. The interior is finished in white enamel and hardwood. Everywhere there is a profusion of white surface, and men with scrub buckets go over this white surface every day, so that the fresh appearance of the place is persistent.

For another thing, the workers about the factory thoroughly understand that they are not to litter up the place or to look untidy themselves. Moreover, the use of tobacco in any form is strictly forbidden in the factory.

Anyone who might pass through this establishment on a holiday would naturally suppose that a small army of scrub men would be necessary to keep the place in the state of cleanliness always to be found. As a matter of fact, well worth the attention of food-product

manufacturers in general, the cost of maintaining the scrubbing brigade is a mere trifle. The place never really gets dirty, so that a hard job of cleaning is never necessary. A few men go over the place very quickly.

In the manufacture of the food product, simplicity of method and simplicity of mechanical devices prevail. The operation is continuous, and the ingeniously contrived machinery does away with the necessity of touching the product with the hand until the packing table is reached.



THE SPACIOUS RECEPTION ROOM.

The best white wheat obtainable is selected for the making of the food products. This is stored in enormous tanks, where it is free from injury of any kind. Taken from the tank, the wheat is thoroughly cleansed by machinery. The cleansing process contemplates the removal of all manner of foreign matter. To do this twenty-two different types of machines are required. In the end the wheat is absolutely clean. Then it is steam cooked for about a half hour in steel cylinders. The swollen, softened grains are then fed into a drying machine which removes the excess of moisture, when the wheat is fed into the hopper of the shredding machines, each eighty feet long and consisting of thirty-six pairs of corrugated rollers. The wheat kernels drop in between these rollers and are drawn out into fine, porous shreds, which fall upon an endless chain, layer upon layer, until the thickness of the biscuit is formed, when the long band of white filaments is brought to a cutting device, which separates them into oblong cakes and drops them into a pan holding forty-eight biscuits. The pan is then placed in a large revolving oven, where the biscuits are baked. They are then placed in a second oven, where they are thoroughly dried. From this oven the biscuits go to the packing table, where they are placed in cartons and then carried on an endless belt to a very ingeniously contrived machine that closes the package and delivers it sealed, ready for packing in wooden cases.

The triscuit made by this company is shredded whole wheat compressed into a cracker or wafer and cooked by electricity in a specially devised machine, consisting of a series of moving waffle irons, which compress and indent the wafer while the electric current supplied to each iron cooks the wafer.

To most people who visit the shredded wheat factory the making of the biscuit and triscuit is the great attraction. But there are many visitors who see in the sanitary and welfare features of the establishmnet the solution of a problem much larger and more interesting than the mere making of a food product.

There is of course nothing new in factory hygiene, or welfare work—in theory. But here these features



AUDITORIUM, WHICH ALSO IS USED FOR DANCING.

are a vital force, carried beyond the limit of many good people who have dreamed of sanitary factories, where the wage-worker was recognized as something more than a part of a great machine. Here there is such an expression of parental solicitude for the wel-

fare of the help that the entire working force appears to resolve itself into one great, big, happy family.

Public spirited men and women have been trying for years to break away from the old relationship of employer and employe. Many manufacturers have of their own accord improved the working conditions of their help, while others have been forced to modernize their methods by strict laws, the enforcement of which is looked after by official inspectors.



MAKING USE OF THE CIRCULATING LIBRARY.

At Niagara Falls they go beyond the demands of the law, offering so many attractions for the help that there is no disposition on the part of the wage-workers to grumble or leave the employment of the company, except to take more remunerative places. And this very thing happens frequently, for the workshop is a school as well as a manufacturing establishment. When a young man or young woman comes into this place to work it is with the distinct understanding that there is no bar to such improvement as will take them to other places. It was the original idea of Mr. Porter, president of the corporation, that the welfare of the wage-workers should be given particular attention, but there never was a man in the establishment to carry this idea out thoroughly until Fred Mason became vice president and general manager, and Fred Mason carried out the idea with a vengeance. More than that, he went far and away beyond the original plans of welfare work. To begin with, he raised salaries, then he secured a competent man to look exclusively to the welfare of the wage-workers. The plan contemplated a guarding of the health of the employes, the looking after their comfort, contentment, intellectual and moral improvement. All this was not to be done by preaching sermons, but by practical methods. Some of the things done for the welfare of the employes may be enumerated as follows: First, a professional Red Cross nurse was provided with a suitable room and all first aid material necessary to take care of the afflicted. Then a corps of Red Cross nurses was organized. Members of this organization are scattered throughout the factory, each having a special station to look after. Anyone in a station taken ill or suffering from any physical ailment is at once taken in charge by the local Red Cross nurse, who takes the patient to the head nurse, who attends to the case at once.

The supervision over the health of the employes does not end when the factory closes at night. The absentees from work are looked up and, when it is found that they are ailing, the company's medical department takes the case in hand and gives it the very best possible attention. So it may be truthfully said, no one of the great number of employes in this big factory will be allowed to suffer for want of medical or other attention because of temporary affliction.

Those who are well have the same attention as those who are ill. The company not only provides a locker for each employe, and costly lavatories, but there are bath rooms for all, with soap, towels and other facilities for encouraging cleanliness.

The restaurant feature for men and women is of especial practical importance. The women's dining-room is large and attractive. Here noon-day meals are served free. In the men's restaurant, half the cost is charged, which makes it possible for the male employes to get a good, substantial midday meal at a nominal cost.

During the noon hour, a large number of the employes go to the assembly hall, where they may have an opportunity to dance if they desire to do so. This hall is not only used during the day, but it is for the benefit of those employes who may desire to use it after working hours. The policy of the company is to provide teachers for any group of five employes who may desire to take up any special class of study. At present there are classes in music, painting, literature, stenography, etc., etc. The employes also have the use of the hall for dancing parties and other entertainments.

The company also provides comfortably furnished rest rooms for both men and women, cooking schools for the girls and spacious playgrounds, including lawn tennis courts and spaces for other outdoor games.

Then there is a band of some consequence, coached by an expert provided by the company. The suits of this band would compare favorably with the best suit the Kaiser wears when on dress parade. Some of the members of this band are able to make a good



EMPLOYES' COOKING CLASS.

salary for their work on special occasions outside of their regular employment.

One of the most striking features of the welfare service, as conducted by Mr. Mason, is at once the most simple and, possibly, the most wonderful, because of its simplicity and effectiveness. This is what Mr. Mason calls:

The substitution of the lute for the lash.

Briefly, it is this: Along about four o'clock, of a dull, cloudy day, when the help is depressed, a cornet player appears on the balcony overlooking the workshop, and at once strikes up a popular air. The girls and men take up the refrain and the spirit of song drives away the gloom.

It is just a little thing, but if Fred Mason has ever done anything to earn the title of genius it is the invention of just this little thing. Men and women have in the past been scourged to greater effort; now comes Fred Mason and dispels gloom and sluggishness with simple song. But this must be seen and felt to be fully appreciated.

Some pessimistic chap about the shop looked upon all these innovations instituted by Mr. Mason as rather dangerous experiments, and finally said: "It is all very nice, but wait until we see the increased cost of manufacture."

Strange to say, the cost of manufacture was lowered.

No one has been able to quite solve this reduced cost problem in the face of what looks like great extravagance. But the figures are there, and they are more than satisfactory to the officers and stockholders of the company. Mr. Mason does not explain it any further than to say that he can get more effective service from help that is well treated than he could expect to get from help that were treated like machines.

It is a new idea, this substitution of the cheerful tones of a musical instrument for the vicious swish of the lash.

Fred Mason has done something for humanity, and this little something will be an inspiration to others. It is a little thing, but its influence will live after we are all dead.

DIGESTION OF FOOD IN HEALTH AND DISEASE.

Louis J. Tint, M. D.

[NOTE.—This is the second installment of a treatise by Dr. Louis J. Tint, bacteriologist to the Illinois State Food Commission, on the "Digestion of Food in Health and Disease." Among the important subjects that Dr. Tint will write upon in the course of this series of articles will be the digestion of food products by healthy and sick people, the influence of predigested food, the effect on digestion of food products containing saccharine, the effect of food products containing boric acid, etc.—Editor.]

INTRODUCTION.—Continued.

THE NEW ERA.

THE epoch known in history as the New Stone Age was characterized by the discovery of fire. It caused a gradual introduction of cooking among primitive races, and marked a new era in the digestion of food.

The primitive man ate his meat raw. He frequently shared his fate with the beast of the jungle by having periods of fasting alternating with times of plenty. At that time there was no knowledge concerning the preservation of food from one meal to another. When game was secured, each individual tore the raw flesh, gorged himself, and half stupid, he fell asleep like the snake after swallowing its prey.

THE EFFECT OF FIRE.

The introduction of fire and cooking had a great influence on digestion. To be able to digest constantly raw meat, requires specially adapted digestive organs. The stomach like any other part of the body will enlarge in proportion to the increased amount of work. This is known as functional enlargement or physiologic hypertheophy.

Vegetables as a daily diet must have been objectionable to the prehistoric man for various reasons. First, that the greater part of vegetable, cellulose, is indigestible; secondly, in order that it should be nourishing, a large amount must be consumed. But when it was found that cooking softens, concentrates and makes these vegetables palatable, then they were gradually introduced as part of the diet. Attention was paid to the cultivation of these vegetables and fruits, and agriculture was the result.

PLANTS AND ANIMALS UNDER NATURAL AND DOMESTIC CONDITIONS.

At the present time of selecting and eliminating undesirable characters in animals and plants, and retaining for breeding purposes only those that possess the most favorable features, the impossible has almost been achieved. Instead of the long horn and poor beef cattle, breeders have succeeded in producing the short horn with good beef qualities. The long legged sheep jumping the fence and worrying the farmer is gone long ago. Today the breeder will take only such animals which have a pedigree of pure breeds. For dairy purposes, milk cows are preferred, while for stock raising, the best beef producers are selected.

The same process of selecting the best seed is carefully applied in agriculture. This is done by experts in that line. The farmer who takes care in obtaining the best seed and chooses the desirable place for planting wheat, corn, vegetables, etc., in their proper place, will always get the best returns.

Even with our present knowledge of soil conditions and seeds, crop failures are not infrequent. No matter how careful the farmer is, the natural enemies of the plant kingdom are still present. How much more difficult was it for the farmer at the early dawn of history when agriculture made its appearance.

In order to appreciate the part played by destructive elements in the plant world, we only have to see how plants behave under natural conditions. What chances are there of escape and survival in the struggle for existence when plants and trees are allowed to run wild?

(To be continued.)

The consumption of canned foods in the United States at present it is computed is only about twenty-five cans per capita per annum, or about two cans a month for each individual. The packers of canned foods think it is possible to increase this amount to two cans a week for each person, thus quadrupling the business in that line.

Retail grocers have been called the "autocrats of the public appetite," and they are declared to hold the power of "setting the style" in foods through their influence with their customers, who are largely women. Almost without exception the provider for the table is perplexed to give variety to her menu, and the groceryman who is apt at suggestion will find willing listeners.

Oatmeal exports dropped off in the fiscal year 1912 to 9 million pounds from 32 million pounds in 1911.

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

AS TO THE HIGH COST OF LIVING.

HIGH cost of living bids fair to be a favorite subject for discussion for some time to come. There are those who view the situation from a standpoint which only one deeply steeped in statistics and the science of economics can comprehend even to a slight degree. Others handle the subject in an exceedingly superficial manner, and find the cause for the high cost of living in some favorite theme which may seem to them to contain elements of wrong commercial practice.

The best that any of us can do is to attack this problem in a way which the particular circumstances of each one of us may permit us to compass, and by constant battering with a myriad of hammers eventually break down the walls, and bring ourselves to a situation where the cost of living and the amount of income are more evenly balanced. It is not demonstrably true that it would be altogether an unmixed benefit to have prices on many commodities arbitrarily reduced; it is quite conceivable that economic effects such action might produce would not be productive of highest good to all concerned.

It is interesting to note that different peoples have very different ways of protesting against high cost of living in their various countries. It is also noteworthy that it is benefit to ourselves physically, mentally, and financially. We have become more or less slaves, every one of us, to the fetich of "service." This service which we so much covet and have been willing to pay money for, is one that too often simply relieves ourselves of personal trouble or inconvenience. It would be better for most of us if we learned to serve ourselves more, and were less willing to be waited on by others. Too much service is bad principle upon which to found strong character and self reliance.

The law of supply and demand will continue to work whether or not we like it. If everyone resolved—and kept the resolution— to refrain from eating any one kind of food, for instance, it would be an easy matter to reduce the price of that particular article: But the substitute which they take in place of the food which they have renounced would soon show a rising price scale and in a very short time we would be no better off than before. Besides quite likely in the process we would have disturbed unjustly existing commercial conditions, with disaster to some and no real or lasting benefit to others. The proper system is for each individual to trim where it is easiest and best for him to trim. That gives commercial interests no unhealthy shock, allows producers, manufacturers, and distributors to adjust themselves naturally to gradually changing conditions, and the best ends are attained without injury to anyone.



THE COMING GENERATION SOLVING ITS COST OF LIVING PROBLEM.

high prices for food which receive the most condemnation, not wholly, we are wont to believe because the protestants may be sensible of pangs of hunger, or ever have been, but to some extent at least, because it touches most of us the quickest to sacrifice at that particular point. The vast majority of us will complain quickly and resentfully when we are confronted with the possibility of being obliged to "save at our stomachs," and many people refuse to do that specific kind of saving. On the whole, we are in sympathy with the refusal if it is the result of reasoning that an individual to be healthy, capable of the best and highest effort, and to keep the highest point of achievement, must be well fed. The fact that the American people have been for generations exceptionally well fed, it is frequently explained, accounts for the great progress our country has made. It isn't altogether a wise thing to "cut at the table" as many people advise doing.

At the same time it is a fact that we American people have not been trained to frugality, or to nice distinctions between essentials and non-essentials. We deny ourselves little when it comes to personal conveniences or comforts. Yet we could practice considerable self denial with great . But this cost of living problem has still other angles. We are assured by those who have deeply studied the subject of waste, that if we knew how to utilize properly all that comes to our possession no "problem" in reference to this matter would exist. Why do we waste so much? We are not a wilfully extravagant people. Our fault is rather the result of thoughtlessness and ignorance.

Insofar as this ignorance relates to foods and proper nourishment of the body we are in a fair way to right the present deplorable situation and the high cost of living problem for the coming generation is now being solved in our public schools. The movement for teaching domestic science in the public schools is nation wide. City and country are demanding that their girls be taught household science, nutrition, dietetics, sanitation, etc., theoretically and practically, in the public schools. Girls are learning to market wisely, to select proper kinds of food, to calculate the character and quantity of their constituents and so on. Armed with a large fund of this information they are going to be able to plan economical and intelligent menus which will be both palatable and provide a well-balanced ration not forgetting the cost of all intrinsically.

Recipes That Are Worth Trying

BECAUSE they are cheap and always seasonable bananas are a favorite fruit with a large number of people. They possess a much larger food value than is the case with many other fruits, and while the apple, orange, and other fruits aid digestion by means of their splendid acids or salts, the banana nourishes. Nearly every other fruit is deficient in flesh-making power, the banana alone containing one-fifth of the food weight in pure, nourishing sugar, and which is in a form readily absorbable, requiring no digestive change at all. One-twentieth of its weight can be converted into protein with which the body can build itself up. No hard cores or waste fibers are met with in the fruit after the thick outer skin is removed. There is a bitter oil in the banana, also—little in comparison with its sugar-bulk and protein, still the oil is in excess when compared with other fruits. Oranges and lemons hold their aromatic oils abundantly in the fatsacs of their rinds, and it is not eaten by the fruit lover; but the banana has its oil mingled with its flesh, making it rich, and a giver of carbon, which the eater's body will transmute into either fat, warmth, or working power.

This food value is not generally recognized in the fruit, which is used almost entirely as a dessert, that part of the meal which is not usually looked to as particularly useful in building up the body. Either raw or cooked they are decidedly wholesome, and from them are concocted some most appetizing and attractive dishes.

BANANA CHARLOTTE.

Take one pint of grape juice and add to it two heaping tablespoons of gelatine, previously dissolved in cold water. Set dish in ice water and stir the mixture until it begins to thicken. Then add one pint of stiffly beaten cream. Line a fancy mold with bananas cut crosswise, then pour over sufficient charlotte to cover the fruit, and chill; make another layer of fruit, add more charlote, chill, and repeat until mold is filled, having a layer of bananas on top. When ready to serve unmold and garnish with spoons of whipped cream placed around the charlotte.

BANANA FRITTERS.

Peel and quarter bananas, pour over them a few spoons of lemon juice, sprinkle with sugar and let stand for an hour. Meanwhile make a stiff batter with three eggs, a pint of milk, and flour enough to get it to the right consistency, sifting into the flour first a teaspoon of baking powder. Dip the quartered fruit in this and fry at once in hot fat. Drain and dust with powdered sugar before serving.

BANANA SAUTE ON TOAST.

Select ripe, juicy bananas, peel and scrape off all the fibers, as these give a bitter flavor. Divide in halves lengthwise and crosswise. Put two tablespoons of nice beef or veal dripping into the spider, and when hot lay in the bananas and sprinkle with salt, brown each side and be careful that the rich juice which comes from the banana does not burn. Have ready as many slices of toast as there are bananas. Pour the juice over the toast and arrange four of the browned pieces of banana on each slice. A few drops of lemon juice may be sprinkled on the bananas if liked. With a bit of crisp, curly bacon, and a cup of coffee, this makes a very acceptable breakfast on hot mornings when one does not care for meat or other hearty food.

BANANA SHORTCAKE.

Two cups of flour, two teaspoons of baking powder, a pinch of salt, butter the size of an egg. Rub smooth and add sufficient water or milk to make a soft dough. Roll into two thin layers and spread butter between so that it can be separated without cutting. Bake in a quick oven; split, butter generously and fill with sliced bananas sprinkled with sugar. Serve at once with cream.

Miscellaneous Recipes.

FRUIT JELLY.

Half a package of gelatine, half a cup of cold water, the juice of a lemon, one cup of boiling water, and two cups of orange juice, and half a cup of nuts. Soak the gelatine in cold water, add the boiling water and half a cup or more of sugar. When cold, add the lemon and orange juice, strain through cheese-cloth into large mold, add the nuts and chill. A fine orange flavor may be secured by grating the orange rind into the juice, letting it stand for an hour or two, and straining through cheese-cloth before putting into the jelly. Or, use loaf sugar, and rub the lumps upon the orange rind to extract the zest. Top with whipped cream and ornament with banana slices.



FRUIT JELLY. BANANA CHARLOTTE.

MARBLE CAKE.

White part: One cup butter, three cups white sugar, beaten to a cream; one cup sweet milk, one-half teaspoon soda, five cups flour, whites of eight eggs beaten to a froth added last. Brown part: One cup butter, three cups brown sugar, beaten together; one cup molasses, one cup sour milk, one teaspoon soda, the yolks of eight eggs and one egg besides beaten, four cups flour, spice of all kinds that is liked. Put into the baking pans first a layer of the brown part, and then of the white, finish with the brown part. This is excellent, and makes three or four loaves.

PROWN BETTY.

In a quart pudding-dish arrange alternate layers of sliced apples and bread-crumbs. Season each layer with butter, sugar, nutmeg, clove and cinnamon. When the dish is full, pour over it half a cupful each of molasses and water well mixed. Cover with crumbs. Set the dish into a pan of hot water and bake until the apples are soft, adding more molasses and water if needed. A few raisins or nuts may be added to this pudding. Serve with cream.

BAKED BANANAS.

Peel the fruit, split lengthwise and place in a baking pan. Sprinkle with sugar, baste each with a little melted butter. Put the pan in a hot oven and baste frequently with a syrup



BAKED BANANAS.

made of two tablespoons of boiling water, a half cupful of sugar, and one teaspoonful of butter. Bake until a fine glaze is formed and serve with currant jam as a garnish.

HARLEQUIN PUDDING.

This dessert is molded in three layers—pink, yellow and chocolate. For the chocolate part, scald two cupfuls of milk, add two-thirds of a cupful of sugar, one square of chocolate melted, and four level tablespoonfuls of cornstarch wet smooth with cold water. Cook until thick and the starch has lost its raw taste. Pour into a mold that has been rinsed in cold water. For the yellow part, scald two cupfuls of milk, add one-half cupful of sugar, the yelks of two eggs, four level tablespoonfuls of cornstarch and one-half teaspoonful of lemon. Cook as for the chocolate layer, and turn on to the chocolate in the mold, spreading it evenly. For the pink part, scald two cupfuls of milk, add one-half cupful of sugar, the stiffly-beaten whites of two eggs, four level tablespoonfuls of cornstarch; flavor with strawberry extract and color with a very little color paste, using only enough to make a tint of color; the amount will vary according to the kind of coloring used. When ready to serve, turn on to a platter or large glass dish. This is a pleasing dessert for children when it is not convenient to make ice cream for them.

TOMATO CROQUETTES.

To a pint of tomatoes add a tablespoon of sugar and stir thoroughly until the sugar is absorbed; then add a pint of very fine bread crumbs, salt and pepper, two tablespoons of minced onion, if liked, a well-beaten egg, and enough of



TOMATO CROQUETTES.

the juice of the tomatoes to moisten so that the mixture may be shaped. Fry in hot fat until brown and serve either hot or cold. When serving for a company luncheon, the croquettes may be given a festive appearance by sticking in the top a tiny rosette of ribbon.

MEXICAN ALFONDIGAS.

Take equal parts of fresh pork and beef, chop fine, add salt, a piece of soaked bread, one egg well beaten, and one teaspoonful of chile powder. Mix thoroughly and make into small balls, putting into each a piece of hard-boiled egg. In a tablespoonful of hot lard put five peeled and crushed tomatoes, a little chopped onion, salt and chile powder; add one cupful of broth and let boil a few moments; then put in the meat balls and boil until the meat is thoroughly cooked.

SALMON ROLL.

One can salmon, one cup of bread crumbs, two eggs, salt and pepper, two tablespoonfuls of milk (milk may be omitted if a drier loaf is desired); mix thoroughly and form into a roll in a buttered pan; then take one-half cup of crumbs, two tablespoonfuls of melted butter, mix and pour over top and sides of roll; bake one-half hour. Sauce: One pint of milk, one tablespoonful of flour, one tablespoonful of butter; cook and pour over roll when done and serve at once.

Appetizing Cheese Recipes.

SOMERSET CANAPES.

Cut white bread which is about 24 hours old into one-fourth-inch slices, and shape with a small oblong cutter with rounded corners; if one is not at hand. cut in any desired shape. Cream, butter, add an equal quantity of soft cheese, and work until thoroughly blended, then season with salt. Spread on the bread and garnish with a one-fourth-inch border of finely-chopped olives. Garnish the center of each with a small piece of red or green pepper cut in any fancy shape.

RICE WITH CHEESE.

Put one tablespoon of salt and three cups of boiling water in the top of a double boiler and add gradually one cup of well-washed rice, stirring with a fork to prevent the rice from adhering to the boiler. Boil five minutes, cover, place over the under part of double boiler, and steam 40 minutes, or until the kernels are soft, the time depending upon the age of the rice. Uncover, that the steam may escape. Cover the bottom of a buttered baking dish with rice, dot over with three-fourths of a tablespoon of butter, sprinkle with thin shavings of mild cheese and a few grains of cayenne. Repeat twice, using all the rice and one-fourth of a pound of cheese. Add milk to one-half the depth of the contents of the dish, cover with buttered cracker crumbs, and bake until the cheese has melted and the crumbs are brown.

CHEESE FRITTERS.

Melt one-fourth of a cup of butter, and add one-fourth of a cup of flour, one-fourth of a cup of corn starch and three-fourths of a teaspoon of salt. Stir until well blended, then pour on gradually, while stirring constantly, two cups of scalded milk. Bring to the boiling point, and let boil two minutes; then add the yolks of two eggs slightly beaten and one-half cupful of grated cheese. Pour into a buttered shallow pan, and cool. Turn on a board, cut in squares, diamonds or finger-shaped pieces, and arrange in a pan. Sprinkle with one-third of a cup of grated cheese, and brown in a moderate oven.

CHEESE OMELET.

Beat four eggs slightly, and season with one-fourth of a teaspoon of salt and a few grains of cayenne. Melt one and one-fourth tablespoon of butter in an omelet pan, pour in the mixture, and cook slowly, without stirring, until firm. Loosen from the pan, roll, and sprinkle with two tablespoons of grated cheese.

CHEESE CROQUETTES.

Melt three tablespoons of butter, add one-fourth of a cup of flour, and stir until well blended; then pour on gradually, while stirring or beating constantly, two-thirds of a cup of milk. Bring to the boiling point, and add the unbeaten yolks of two eggs, and stir until well mixed; then add one-half cup of grated Gruyere cheese. As soon as the cheese melts, remove from the fire and fold in one cup of mild cheese cut in very small cubes. Season with salt, pepper and a few grains of cayenne. Spread in a shallow pan and cool. Turn on a board, shape in the form of croquettes, dip in crumbs, egg and crumbs again, fry in deep fat and drain on brown paper.

PLAN MEALS AHEAD.

By Margaret Wilson.

WHILE we all recognize that it is easy to give advice and not so easy to follow it, yet many housekeepers do carry out the ideas they advocate and it is from that character of people that we get suggestions of real value in the conduct of the home. You recall the statement adaptable to so many things, that "it's half in calculating," and in respect to no duty is this more to the point than that of preparing the daily meals.

To make menus for three meals a day three hundred and sixty-five days in the year is no small task, and if one is not to meet complete wreck on the rock of monotony a considerable amount of brain work must be done. How many housekeepers there are who about an hour or two before dinner ask themselves, "What shall we have for dinner?" and after a little fruitless thinking decide upon fried meat and potatoes with perhaps a hastily prepared pudding for dessert. Sometimes we are tempted to think that manufacturers have made it almost too easy to prepare some of the common foods, and that it tends to encourage indolence of mind, if not body, making it easy for us to shirk the duty of concocting new ways of preparing our daily meals.

It is not necessary that one face the immediate necessity for preparing a menu for a given meal in order to intelligently compass the task. Some there are who work better under the spur of immediate need, but the majority of people get better results if they take time to "calculate," and make up these menus at their leisure. The proper way is to think out good and appropriate menus when one has ample time, and then write them down for future use. In this manner it is possible to accumulate a number of menus for different occasions and for every day use, without the task taxing unduly one's patience and ingenuity.

Every family has its peculiar likes and dislikes, favorite foods and those which are not relished. Doubtless much of this is the result of training, and it should be one of the aims of the housewife to see to it that the habits of eating do not become so fixed as to make the members of the family too "finnicky" as to what kinds of food they eat, so long as it is clean and wholesome, or too particular as to how given dishes are prepared. Those who live much at boarding houses or eat frequently at restaurants overcome many family prejudices, but it often proves a difficult task, and such habits of eating are better never formed.

The subject of whom one must feed is one which should be carefully considered. A man working in store or office all day does not need the same character of food that a laboring man or outdoor worker of any kind requires. Each must have the same proportions of each kind of food, but the out-of-door man will need more of what is sometimes called "roughage," or more bulky food. Oatmeal, cabbage, turnips, etc., are examples of the bulky foods.

It is pretty generally recognized that most everyone in this country eats too much meat. Once a day is plenty for most families, and yet there are people who eat it not only at more than one meal, but in cases have several kinds of meat at one meal. This is the height of folly and bad management. A prominent writer discussing this subject recently said:

"The daily dietary of the average man taking moderate exercise, according to Prof. Voit of Munich, should consist of from one to two ounces of protein, two ounces of fat, and sixteen ounces of sugar and starch. This does not take into account the mineral elements essential for a balanced and adequate nutrition—elements found in fruits and grains which have been rightly described as the 'building stones of the body.' As the results of careful expert research we are assured that where the caloric value of all the food we eat is high we require fewer proteids, and much eating of meat may become a source of weakness instead of strength because of the excess in the system of waste nitrogenous products, their decomposition acting as a poison affecting both nerves and muscles."

Then the knowledge of what is necessary to prepare an appropriate combination of meats and vegetables is too frequently lacking. The food eaten should be so served as to feed all parts of the system. Steak and mashed potatoes may be all right for one day, but a continuance of that diet would mean that only those parts of the system requiring starch had been nourished by vegetable diet. This does not mean that every day there should be a half-dozen vegetable dishes upon your table, for under ordinary circumstances two vegetables are enough, but the vegetables should be those fit to serve with the particular meat course, and so selected that the whole body may be strengthened by the meat. Custom is so strong that there are certain combinations of food, admittedly wholesome, that cannot be well omitted. For instance, to combine baked or mashed potatoes with roast beef, mashed potatoes with fish, rice croquettes or potato croquettes with chicken, macaroni with potted beef, etc. But this does not go far enough. With this vegetable combination, in almost every case of a steady nature you should have one that is green or tart—add to roast beef and potatoes, spinach or string beans and a salad; to potted beef cucumbers, tomatoes or peas; to boiled mutton, peas and asparagus; to chops, if breaded, sliced tomatoes, boiled onions and peas. If you do not care for so many side dishes, try serving a tomato and cucumber salad, or spaghetti with a tomato sauce, as a separate course. Salads served in this way should always be dressed with a light French dressing, the others, like the mayonnaise, being too heavy for that purpose. A jelly often adds much to a meat course. It may even take the place of one vegetable. With venison or mutton use currant, cranberry jelly with turkey or chicken, tart grape jelly with duck, and apple sauce with pork.

Possessed of such knowledge as this, and more of the same character, to be gleaned from reading, study and personal experience, menu making becomes an easier task and is intelligently accomplished.

LET GOOD DIGESTION WAIT ON APPETITE

By Mary D. Chambers, Rockford College.

When we of the present generation were growing up we used to hear a saying, attributed to no less a man than Hippocrates, the Father of Medicine, to the effect that "food that is relished is half digested." Then came along a body of modern sages who experimented with youths shut up in cages, eating, in the interests of science, food they did not relish, and digesting it just the same as if they liked it. So a corollary was tacked on to the dictum of Hippocrates, and we were taught that the nerves which control digestion were largely dependent on the will, so that if we can rule our appetites and eat food which is nutritious and wholesome we shall digest and assimilate it even if we dislike it. And immediately we all felt very superior, and were sorry for those poor Greeks who did not know as much as we did.

But lo, another sage rose up, who was skeptical of the conclusions of his predecessors. This was one Pavloff, who made a series of experiments on dogs, the result of which led us round in a circle until we reached the point where we started, and found with Hippocrates that it is, after all, a good as well as a pleasant thing to relish your food, and enjoy the things that you eat.

Pavloff's conclusions may be epitomized as follows: Every food that is taken into the stomach stimulates the secretion of its own special quality of gastric juice, which is adapted, both in its degree of strength and in the relative proportion of its constituents, to the digestion of just that kind of food. Thus, milk will stimulate the secretion of the right kind of gastric juice for the digestion of milk, and cod-fish will stimulate the right kind of gastric juice for the digestion of cod-fish. But Pavloff found that when we eat any food that we greatly relish, so that its sight and smell are enough to make our mouths water, and on placing it on our tongues every little taste-bud fairly exults over the delicious flavor, then a marvelous kind of juice is secreted by the stomach which is capable of digesting anything in reason. This was fitly named by Pavloff "appetite-juice."

This is the juice which forms the basis of the commercial preparations of pepsin. A young and healthy pig is carefully housed, kept clean and regularly fed until it is in top-notch condition. At last comes a day when no breakfast appears for piggy, perhaps no luncheon, nothing at all, until he squeals with hunger. A hot and tempting meal is then placed just outside the bars of his stye, and while his mouth waters for it he is killed, as quickly and painlessly as possibly, and the "appetite-juice" removed from his stomach. If it were not taken at, literally, this psychological moment, it would lack its potency.

Now for the application. Suppose you have an uninteresting but wholesome dinner—be sure to have a delicious and tempting dessert. Suppose you are very tired and disinclined for food—begin your meal with some *bonne bouche*, some relish, so that the labor of digestion will be lightened and appetite will be stimulated. Try, so far as it is legitimate, to cater to the tastes of old people, invalids and delicate children. And, finally, try to cook every meal so as to develop its sapid principles. Human nervous energy, even considered as a commercial asset, is too valuable to be squandered in the labored digestion of unrelished food. Let us make our dinners taste good, so as to stimulate the secretion of that fine "appetite-juice" which will do all the rest.

The Washington Point of View.

By Our Staff Correspondent.

WASHINGTON, March 26.—All the favorable impressions concerning the new head of the Department of Agriculture have been fully justified by developments since Dr. Houston succeeded James Wilson. The best evidence afforded this month that nothing foolish is to be expected from the department is the appointment of Dr. Beverly T. Galloway to be assistant secretary.

It is somewhat nauseating to refer to the factional fight started by a former chief of the Bureau of Chemistry but it is necessary, else there will not be a proper background. The former chief has no standing whatever with the new assistant secretary. He has about as exalted a notion of the scientific attainments of that former chief as he has of those of a Digger Indian medicine man.

If anybody is able to start anything about the questions that were settled adversely to the former chief, it will be necessary for some well-informed person to furnish a diagram showing exactly how it was done because otherwise it will be unbelievable.

Inasmuch as Dr. Alsberg was recommended for the place he now holds, there is nothing in view that looks like any former row-maker cashing in on his political gyrations during the last campaign. Naming names, which is not dignified when one is discussing the right or wrong of a thing, it is pertinent to ask where the Wiley faction made anything for itself by refusing to accept the rulings of Secretary Wilson? What profit was it to them to kick over the traces and induce ill-informed newspaper men to publish insinuations that James Wilson was a doddering old fool and that those who disagreed with the former chief were crooks?

Similar questions might be asked with regard to those who thought they were doing something good for themselves in backing up Gifford Pinchot in his insubordination, except for the fact that questions about forestry have no place in a food journal. In passing it may be remarked that there is not a scintilla of evidence indicating that Secretary Houston regards any of the reports the enemies of James Wilson got printed other than so much superheated air.

In fact it would be just to suggest that Mr. Houston has an idea that men who will not loyally support the head of the department, or resign, are not to be trusted at all. The way out was always open during the time when Gifford Pinchot and Harvey W. Wiley, by indirection, were trying to set at naught the policies approved by their chief.

That is too dignified a way to refer to what those men did. They were looking for advertisement for themselves instead of seeking to serve the public. They got the advertisement but the confidence of the beneficiaries of the political conditions they helped to create by their insinuations that everybody else was corrupt is not at all noticeable. The men who observed the rule of decency, that of carrying out the policies adopted by the men charged with the duty of formulating those policies, are continuing in their places. One of them has been promoted but not one of the Pinchot or Wiley men has been called back into the service.

Prof. Willis Moore is to retire from the chieftaincy of the weather bureau on July 1 chiefly because he made a fight for a place in the Wilson cabinet. Nobody who knows anything about such things takes any stock in the assertion of some of Moore's friends that he did not know anything about the fight that was being made in his behalf. That is a story to "tell to the marines" or those who do not know any better; their experience has not been long enough to teach them the elemental fact that men fit for cabinet places are not brought to the attention of a president by the adoption of resolutions by organizations whose political activities are only incidental to some other line of work.

Dr. Houston has been proceeding with caution. He has placed the fullest confidence in Dr. Galloway. Therefore it is a certainty that the assistant will not be found acting as the heir-apparent to a throne is always expected to act—encouraging opposition to the man whose shoes he might be expected to wear were the chief to lose his political head.

While there has been no announcement to that effect, it is known that the new secretary is looking to his assistants for advice as to the vacant solicitorship. He is not looking to the politicians up on capitol hill. That means that he wants to get a lawyer as adviser whose aim will be that of making his chief's administration a success. The lawyer with no recommendation other than plain politics is not likely to give him the disinterested advice he will need in dealing with problems arising under the food and drugs act, the twenty-eight-hour law, the meat inspection statute, cattle quarantine, trespass upon forest reserves and things like that. Political advice will not help Dr. Houston solve such questions right and in a way that will make the laws most effective. The net weight law itself will afford enough perplexities to keep a lawyer who knows the jurisprudence with regard to the other acts fully employed for a good many months.

Putting an entirely uninformed man in the solicitorship would be about as sensible as hiring an entirely new crew for an ocean liner on every voyage. It might afford pleasure to the ones that got the good places but it might justly make the owner of the ship a bit nervous. So far as the public is concerned, the department is operating exactly as it was under James Wilson.

Dr. Houston's adherence to the rules of the merit system may result, in fact it is safe to say will result, in complaints from the men on capitol hill. It might not be a bad idea for the food and drug manufacturers who believe the administration of the department under James Wilson was sane to be prepared to give the new secretary evidences of the fact that they like the way he is going about the discharge of duties that affect their business in such a vital way.

Much of the embarrassment in the preceding administration was due to the fact that those who knew most about the foolishnes of those who were making James Wilson's work more difficult by their insubordination, did not speak out in a way that would have enabled Secretary Wilson to "go after" the men who were doing their best to besmirch his work and his name. The fact is that public officials who have refused to take sides in behalf of some particular fad, which would have financially benefited certain people, have been villified without any retort from the men who were kept in business by the squareness of the deal given them by the abused officials. The libelers have been able to "get away" with their attacks because the other side kept quiet when it should have spoken out in behalf of the men who fought, not for them, but for what resulted in giving every man what he was justly entitled to receive.

The minute anybody tries to start the old rows again, the White House mail should be flooded with letters pointing out the financial benefit that would be conferred by the reversal of Secretary Houston. That is the only way those who hope to benefit by having the laws administered their way to the hurt of their business rivals can be checked. President Wilson is a strong believer in publicity. If any of the interests that made the fight against Secretary Wilson should undertake another press agent campaign such as they made on benzoate of soda and in behalf of the so-called straight whiskey, the chances are that President Wilson would put a stop to it by giving the public facts that would enable it to judge of the purity of motives actuating the makers of the campaign.

The men who were able to remain in business because James Wilson refused to twist the food and drugs act into an act for the extermination of all except the selected manufacturers, owe it to the new head of the department, that Houston is not subjected to the malicious flings of those who would profit by the constructions of that statute insisted upon by the faction that was defeated because William Howard Taft stood pat notwithstanding the clamor of a misled and deluded public. There are millions to be made by those who can "put over" the constructions of the statute that the Roosevelt and Taft administrations together rejected.

The men who won in the fights during the last four years have been more fortunate than they deserved. The appointment of Dr. Houston and his selection of Dr. Galloway are matters for congratulation.

Sugar As A Food Element

By F. I. Wilbur.

IN the last century sugar production has been marvelously increased by the discovery that it could be obtained in commercially valuable quantities from materials other than the sugar cane, and sugar maple tree. It is not surprising, therefore, that the consumption of sugar in food has also greatly increased, amounting in some countries to nearly a hundred pounds annually for each individual, or in some cases two pounds a week.

Sugars are of several kinds, such as cane sugar, grape sugar, fruit sugar and milk sugar, but whatever their class or name, they are all carbohydrates, or mixtures capable of being resolved into carbon and water. This fact seems to have an important bearing on their nutritive value. It is significant in this connection that the nations who consume the most oil and light wines, all of which contain greater or less amounts of compounds of carbon and water, consume the least sugar per capita. The natives of Italy, Greece and Turkey, for example, consume annually but one-twelfth of the amount of sugar per capita that is consumed by the natives of Great Britain.

Some interesting facts regarding sugar as food have been published by the United States Department of Agriculture, many of which are mentioned in this article. It is largely due to the experiments of European and American investigators in the last few decades that the former prejudice against sweets as an indication of a perverted taste has been lessened and the true function of sugar as a food element has been recognized, so that it is now considered a useful addition to the army rations of soldiers and to the diet of all active workers.

A sweetening material resembling sugar has been manufactured in Japan for the last 2,000 years. It is called ame and is produced from glutinous rice, or glutinous millet, or even from common rice, Indian corn or sweet potatoes, by subjecting the starch which they contain to the action of diastase which converts it into maltose. This process seems similar to the physiological processes by which starch is modified by the digestive ferments, such as the ptyalin of the saliva, and the ferments poured upon it in the intestines which transform the starch into dextrose which is a combustible material available for furnishing heat or muscular energy to the system.

The production of sweet materials resembling sugar is by no means limited to the vegetable world. They can also be produced from volatile hydrocarbons. One of these is saccharin, which is a benzine compound, and can only be taken in very small amounts.

The ordinary sugar in general use is sucrose or cane sugar. It is found in many vegetable juices and occurs in the stems and roots of all the grasses, especially in sorghum and in the gigantic jointed grass called sugar cane. Sugar cane is a native of Asia having been used in China ages ago, but it was only introduced from China and India into Europe and thence to America a few centuries ago.

Sucrose is also found in fleshy roots, such as the beet, carrot, turnip and sweet potato, but thus far it is only from the beet that it has been obtained in quantities commercially profitable. The beet root today yields by far the greater part of the world's sugar supply.

Sucrose is also obtained from the sap of trees such as the date palm and the sugar maple, the yield of the later being almost entirely pure cane sugar. Maize also contains cane sugar. The nectar of flowers and almost all sweet fruits yield cane sugar, and it is from such sources that the bee distills the cane sugar necessary for its honey supply.

The amount of cane sugar in fruits ranges from less than one per cent in lemons to 14% in a certain kind of plums. Bananas contained 11%.

Grape sugar, dextrose or glucose, is found in grapes and other fruits. Dextrose is the result of a process called inversion which occurs when cane sugar, starch and similar materials are heated in a solution with dilute acids, or by some other way are made to unite chemically with water. This process reduces cane sugar to what is called "invert sugar" which is a mixture of dextrose and levulose.

Invert sugar is found to the extent of 2% in large early apricots. Strawberries, gooseberries, raspberries and apples contain three or four times as much, while grapes and certain kinds of sweet cherries contain as high as 15% of it.

It seems quite clear that it is not the sugar itself which is directly beneficial as food, as it is the products yielded by it on chemical decomposition, and these are carbon and water. Carbon is the building stone of nature and water its chief nutrient. It is natural, therefore, to find that tests in the German army maneuvers showed that 10 lumps of sugar per day prevented exhaustion and on long marches appeased the hunger and *mitigated their thirst,* indicating the disintegration of sugar into water and carbon.

A cane sugar solution injected directly in the blood is apparently unfit for assimilation for it is eliminated by the kidneys unchanged. The real value of sugar seems to be that the carbon obtained from its disintegration is available for forming the gas known as carbureted hydrogen or methane (CH_4), which seems indispensable to the growth and respiratory processes of all living organisms.

It is this gas which seems the primary one mainly emitted through the skin and lungs. When near the surface it is oxidized by the air into water (H_2O) and carbon dioxide (CO_2), which are then eliminated from the system, and a part of its hydrogen may be nitrogenized into ammonia (H_3N). These facts concerning methane are not generally recognized, but a little study and observation will convince any careful student of their truth.

The generation of methane and its oxidation seems also a factor of the nutrition of the intercellular and intracellular life. When it becomes mixed with suitable proportions of air, methane becomes explosive and will explode if subjected to an electric spark or great compression. Some such phenomena seem to occur in the processes of growth within the body. It is well known that the nitration of hydrocarbons produces a series of powerful explosives, and that after any

explosion the oxidized products show an increase in weight. Similar results seem to follow the minute cellular explosions by which the growth of the human body is effected. In the case of cellular explosions the necessary oxygen and nitrogen seem to be supplied by the proteids of food.

Mosso with his ergograph experiments some years ago found that sugar in food, in not too great quantities and not too concentrated, lessened or delayed fatigue and increased the working power of the individual.

Prof. Vaughan Harley also found that the amount of muscle work was greatly increased by the consumption of large quantities of sugar.

Dr. Schumberg found that when the sugar stored up in the muscles was heavily depleted by exhausting labor the ingestion of sugar was to a certain extent efficacious in restoring the efficiency of the tired muscle. He concluded therefore that sugar in small doses was well adapted to help men perform extraordinary muscular labor. This is thought to be largely due to the ease with which it can be assimilated.

Sir Martin Conway found that a quarter of a pound of sugar a day was an advantage to a man for mountain climbing.

The beneficial use of sugar has been repeatedly tested with rowing clubs, men in athletic training, field workers, lumbermen, sailors, soldiers and others whose muscles are in more or less constant use. It has also been found useful to feed it to farm animals doing hard muscular work.

Sugar is a powerful antiseptic and germicide. In a concentrated solution it acts as a preservative of fruits, vegetables and meats. It has been known to cure scurvy and the juice of the sugar cane is valuable for children troubled with worms.

Even brain workers find it advantageous to add sugar to their diet. Many a doctor and professor, especially of the non-drinking class, is known to be excessively fond of candy, especially when doing hard or exhaustive brain work. The effect of eating sugar is felt in an hour or two and it has even been recommended that students before an evening of hard study should eat a few lumps of sugar, for lump sugar is generally pure cane sugar. Even the simplest lunch, such as plain bread and butter, which may not attract a tired student, can be made refreshing and palatable by the addition of sugar sprinkled over it.

A very young child is incapable of digesting starchy foods, hence the sugar required for its nourishment, energy and growth is found in the sugar of milk. The two quarts of milk generally taken by a child a year old contains about 3 ounces of sugar. It is unwise to give a child much more sugar in its food before it is three years old.

For an adult under ordinary conditions 4 or 5 ounces of sugar a day are as much as it is thought advisable to eat. Under extraordinary circumstances 17.5 ounces (500 grams), dissolved in pure water, have been found to give an increased abnormal capacity for work, but this cannot be long continued. Vaughan Harley in his experiments found that the daily administration of 400 grams, or less than a pound, of sugar very much affected his digestion.

The function of sugar in preventing the too rapid wasting and decay of organic life is noted in the vegetable as well as the animal world. While the addition of pure charcoal to water is said to be efficacious in preserving the life of cut flowers, the addition of a 10% solution of sugar in water was found to be far more effective and practically a more effective preserver of life than any other. This was the conclusion reached recently by some French professors after a series of investigations covering a period of three years. Sugar is also said to heighten the color of plants.

The results of all the evidence presented seem to be that the main function of sugar is to prevent fatigue, decay or exhaustion. If the system is in a condition to digest starch, an equal weight of it will be found equally effective in giving the power for muscular work because the system converts it into grape sugar, but sugar gives the needed energy quicker because it is quicker assimilated.

In large quantities or in highly concentrated form the constant administration of more than 5 ounces of sugar a day is not advisable, but properly diluted with water or mixed with other nutrient materials it can be a useful adjunct to the diet of growing children or persons suffering from muscular weakness, and is of especial value to persons engaged in unusually strenuous mental or muscular work. Like all foods, however, its use must be tempered with discretion.

United States Department of Agriculture.

OFFICE OF THE SECRETARY.

BUREAU OF ANIMAL INDUSTRY.

Amendment to Regulation 18, B. A. I. Order 150 (Regulations Governing the Meat Inspection of the United States Department of Agriculture), Governing the Marking of Meat and Meat Food Products in Establishments Where Inspection is Maintained.

WASHINGTON, D. C., FEB. 28, 1913.

For the purpose of preventing the use in interstate or foreign commerce of meat or meat food products under any false or deceptive name, under the authority conferred on the Secretary of Agriculture by the provisions of the act of Congress, approved June 30, 1906 (34 Stat., 674), Regulation 18 is hereby amended by the addition of sections 15 and 16, to read as hereinafter set out.

This amendment, which for purposes of identification is designated as Amendment 4 to B. A. I. Order 150, shall become and be effective on and after April 1, 1913.

JAMES WILSON, Secretary of Agriculture.

Section 15. Since the products, "Compound," "Lard Substitute," or "Lard Compound" do not comprehend substances in which water is an added ingredient, therefore, in order to prevent the use in interstate or foreign commerce of meat or meat food products under any false or deceptive name, no meat or meat food product known as "Compound," "Lard Substitute," or "Lard Compound" shall contain added water.

Section 16, *paragraph* 1. Sausage shall not contain cereal in excess of two per cent. When cereal is added its presence shall be stated on the label or on the product.

Paragraph 2. Water or ice shall not be added to sausage except for the purpose of facilitating grinding, chopping, and mixing, in which case the added water or ice shall not exceed three per cent, except as provided in the following paragraph:

Paragraph 3. Sausages of the class which are smoked or cooked, such as Frankfort style, Vienna style, and Bologna style, may contain added water in excess of three per cent but not in excess of an amount sufficient to make the product palatable. When water (in excess of three per cent) and cereal are added to this class of sausages the statement "Sausage, water, and cereal" shall appear on the label or on the product, but when no cereal is added the addition of water need not be stated.

The Honest Label

Address by Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, United States Department of Agriculture, Before the Pennsylvania, New Jersey and Delaware Wholesale Grocers' Association, Wilmington, Del., March 13, 1913.

THE Honest Label is the subject of my address. I have chosen this theme because the Bureau of Chemistry has a very definite message to deliver on this subject, and I have endeavored to limit my public statements to very definite messages. We feel in the bureau that it is a matter of the greatest importance to have a clear understanding about labels with your association. Therefore, I very greatly appreciate the honor and privilege of addressing you.

I think we all realize that honest labeling is of the utmost importance to protect the consumers from fraud. Perhaps we do not sufficiently emphasize its other function, which is to protect the honest manufacturer from fraudulent competition. The honest label is a most important factor in the maintenance of a high standard of business morality.

The food and drugs act was passed six and one-half years ago. It has been in force more than six years. Many decisions on proper labeling have been made and judgments of the court have been published. These have been widely circulated, and are accessible to all for the asking. In the vast majority of products there ought no longer to be any difficulty in proper labeling. The Department of Agriculture feels that there is no longer any excuse for misbranding. It feels that the time is past when ignorance of the law can fairly be urged as an excuse. Substantial misbranding is regarded as ground for prosecution. With the regulations, the food inspection decisions, and with the notices of judgment before him, the manufacturer should find the preparation of labels a simple matter. There is one guiding principle which, faithfully followed, will enable him to avoid all difficulties. Place no statements on the label which are not truly descriptive and intelligible to the average purchaser. If you will ask yourself, without bias: "What does this label mean to the consumer?" you ought rarely to have any difficulties. If you will do that you will always find yourself in harmony with the Board of Food and Drug Inspection, for that is the question which the board always asks itself. The interest of the consumer is the first care of the board. If the manufacturer comes to see these questions from the consumer's standpoint he will never have any difficulties with the Department of Agriculture.

The department realizes that while ignorance of the law can no longer be regarded as an excuse, such ignorance does exist, and perhaps always will exist. In spreading a knowledge of the law your association can do a great service to its members. If you will disseminate the information and perhaps establish an office to give advice on labels, you can accomplish much good. This is already done by at least two trade organizations.

The department further recognizes that there are a few cases in which it is not easy to decide what is proper labeling. In such cases the manufacturer should get advice from experts before publishing his labels. In order to assist in correct labeling, the Department of Agriculture is ready to offer its services in this advisory capacity, and invites correspondence in such cases. In order to consider these questions at all, it is necessary to know the composition and sometimes the method of preparation of the product which is to bear the label in question.

However, the department, through the Board of Food and Drug Inspection, will act in this capacity merely to assist the manufacturer and benefit the public. Its voluntary opinion can have no higher standing before the courts—which alone have the power to finally determine questions of labeling—than would the opinion of any other expert. The opinion of the board in such cases must simply be regarded as the personal opinion of its members. Accepting the board's suggestion will give no man an immunity bath.

We are aware that the offer of this expert advice will involve the department in great labor and many difficulties. But if by this method we can avoid unnecessary litigation, our increased burdens will be worth while. For such a result will save great sums both to the government and the manufacturers. These bills the consumer ultimately pays.

Honesty in labeling will benefit the manufacturer not merely by reducing litigation, but in other ways. The manufacturer of high grade products will be protected from the cheap imitation. The manufacturer of the cheaper grades will sell them for what they are. The advantage of honest labeling is particularly well illustrated in the case of imported articles. It was formerly the custom to flood the market with imitations of imported products labeled to look like the genuine imported article. This has been largely stopped. The curious thing was that the domestic article was often equal, and sometimes superior to the imported one. Now, by compelling honest labeling we will create a market for the domestic article on its merit. You all know far better than we do that there are a great many products made in America which are superior to similar articles made abroad. It is obviously to the interest of the American manufacturer to educate the public to purchase articles on their inherent merits. The misconceptions which still exist have been produced in part by our manufacturers themselves because they have made the labels of their own products resemble the imported ones.

This, then, is the message I bring from the department: The manufacturer will be held strictly accountable for his labels. When he is in doubt about labeling the Board of Food and Drug Inspection stands ready to assist him with expert advice. This advice will be merely the personal opinion of the members of the board, and has no force in law. The department hopes in this way to co-operate with the manufacturer, to avoid unnecessary litigation, and to do its share to promote commercial honesty and fair dealing. We are confident that in carrying out these policies we shall have the active support of your association.

Brief on Saccharin

By Prof. Chas. E. Caspari, Ph. D.

Filed with Committee on Public Health of Massachusetts Legislature, March, 1913.

DR. WILEY, very early in the administration of the Federal Food and Drugs Act, and without any investigation which would justify his reaching such a conclusion, declared that saccharin was a poisonous or deleterious ingredient.

The question as to whether it was, or was not, was submitted to the Remsen board, the members of which made extensive scientific investigations. When their report was made to the Secretary of Agriculture, a regulation was issued, signed by the three secretaries named in the act, prohibiting the use of saccharin as a sweetener in foods.

The three secretaries signed this regulation under a mistake of fact, or a misapprehension as to what the finding of the Referee Board was. (See letter of Secretary MacVeagh).

The manufacturers and users of saccharin, as well as the government officers, intended to abide by the decision of the Referee Board; and after the issuance of the prohibitory regulation referred to, the attention of the three secretaries was called to the fact that the regulation which they had issued was not in conformity with the finding of the Referee Board on the subject.

The matter was then referred to the Referee Board with a view of obtaining a clearer interpretation of their finding, and in a report which it made to the Secretary of Agriculture, under date of January 13, 1912, it said, in part, as follows:

> "1. The findings of the Referee Board, based upon what would seem to be convincing, experimental evidence, are that small quantities of saccharin, up to 0.3 grams per day, are without deleterious or poisonous action and are not injurious to health.
>
> This being so, it would seemingly follow that foods to which small quantities of saccharin have been added—in amounts insufficient to result in a daily intake of more than 0.3 gram—cannot be considered as adulterated, since foods so treated do not contain any added deleterious ingredient which may render the said food injurious to health.
>
> Admitting that large quantities of saccharin—over 0.3 gram per day—taken for long periods of time may impair digestion, such evidence cannot consistently be accepted as an argument in favor of the view that smaller quantities must constitute a menace to health. It is often claimed that any substance having a deleterious effect on health when taken in large amounts must necessarily be injurious even when consumed in very small quantities, and that it is dangerous to differentiate on the basis of quantity. There is, however, no justification for such a view from a physiological standpoint. Common custom, for example, sanctions the free use of vinegar or dilute acetic acid as a preservative; yet it is well known that in larger quantity acetic acid is a dangerous substance. Common salt, while harmless when taken in small quantities, may become a serious menace to health if taken in larger quantities. The hydrochloric acid of the gastric juice is not only harmless but is essential for the welfare of the body, yet when its concentration is increased beyond a certain point, it becomes a poison. It is evident, therefore, that the decision as to whether a certain substance is or is not injurious to health must take into account the quantity of the substance that is involved. The Referee Board is compelled, on the basis of the experimental evidence, to hold to the view that the addition of small quantities of saccharin to food does not constitute an adulteration, since there is no evidence that small quantities of the substance are deleterious to the health of normal adults.
>
> 2. The addition of saccharin to foods, in large or small quantities, does not, so far as the findings of the Referee Board show, affect in any way the quality or strength of the food."

And also:

> "In the opinion of the Referee Board, the use of saccharin in food in quantities that might constitute a menace to health is improbable, since its extreme sweetness would naturally limit its consumption by the individual to amounts below what might prove injurious (in harmony with the conclusions expressed in the original report of the Board)."

The original regulation was subsequently modified, in part, but still not in conformity with the law, and the fact as ascertained by the Referee Board.

This modified regulation was signed by two of the secretaries, Secretary MacVeagh dissenting, giving therefor as his reasons, in a letter to Secretary Wilson under date of February 27, 1912, in part as follows:

> "I am forced to the conclusion that the proper interpretation of the decision of the Referee Board in the saccharin case is that saccharin is positively harmless in quantities that would, in practice, be consumed; and that saccharin does not deteriorate or reduce the food value of any article in which it is used as a sweetener.
>
> I am confirmed in this conclusion by the letter of the Referee Board to the Secretary of Agriculture, dated January 13, 1912."

And again:

> "It is, therefore, my judgment that F. I. D. No. 135 should be withdrawn; and that a new decision should be construed along the lines I have indicated.
>
> It should be stated that F. I. D. 135 was signed by the three secretaries because it was believed to be approved by the Referee Board as a correct interpretation of the Board's decision. The three secretaries intended to accept the decision of the Referee Board; and it was supposed that they were doing so in F. I. D. 135. But the assumption that F. I. D. No. 135 had been approved by the Referee Board, or by the chairman of that Board, as expressing its decision was, as it turned out, unwarranted and an error."

It will be impossible to impartially read the report of the Referee Board without concluding that saccharin is not a poisonous or deleterious ingredient within the meaning of those terms, any more than any other condimental ingredient of any food.

Is it not absurd for the U. S. Department of Agriculture to say that saccharin may be used in some foods, for some people who might need it, or prefer it, or whose health would be endangered by the use of sugar, as a sweetener, but that it cannot be used in *all* the foods which such people might take, and that it cannot be used in some foods, even for *all* of the people who might need it?

The fight which has been made against the use of saccharin does not ring true from any point of view.

Arguments against the use of saccharin as a sweetening for foods are really arguments *favoring* the use of sugar. For what reason is such discrimination made, particularly when it is a known fact, that sugar is harmful to many, while there is no authentic case on record where saccharin has produced a harmful effect?

Sugar is coming to be recognized as the greatest disturber of digestion which enters the human stomach.

Indigestion is a foe to good health.

There are hundreds of thousands of people in the United States who do not want their foods sweetened with sugar.

Why should not the manufacturers of food-products have the right to use saccharin, as a sweetener, instead of sugar, for the benefit of those persons who prefer saccharin as a sweetener; especially, if there is a declaration upon the label to the effect that saccharin has been used instead of sugar, so that purchasers or consumers could not possibly be deceived or misled, and would thus be enabled to make their choice?

Why should the people to whom sugar is a danger be compelled to have their foods sweetened with sugar, if they prefer saccharin?

Why should the people who do not wish to be thus taxed, be thus assessed for the sole purpose of enriching the sugar trust?

There is no danger of any one getting too much saccharin, even for any one day, much less daily for many months.

According to the statistics in the Department of Agricul-

ture as to the total consumption of sugar in the United States, it is apparent that if all the sugar consumed in the United States for all purposes should be instantly displaced with saccharin, the daily per capita consumption would be much less than 0.3 gram.

In the first regulation on the subject promulgated by the U. S. Department of Agriculture (F. I. D. 135) appears the following statement:

> "In every food in which saccharin is used, some other sweetening agent known to be harmless to health can be substituted, and there is not even a pretense that saccharin is a necessity in the manufacture of food products."

This statement is inaccurate, since saccharin is the only sweetening agent known which can be safely used by those to whom sugar is dangerous; and saccharin is a necessity in the manufacture of some food products, as witness the statement of one of the largest canners in the United States, as follows:

> "It is necessary to sweeten canned corn, somehow, because if it were to be processed without the addition of a little water, the extreme heat of processing—245 to 250 degrees for an hour—would scorch the contents of the can. The addition of water alone causes the canned corn to be flat in taste, so, to bring it up to the natural sweetness of corn, sugar used to be added to the water in proportion of 100 parts water, sugar 12 parts. This solution, when it comes in contact with corn forms a dangerous combination, and the result is an acid fermentation which develops during the spring and summer after the goods have been canned—and this form of spoilage not only causes great loss of money, but it happens that the cans do not bulge at the ends so one cannot pick out the bad cans, until they have been opened. The result was that when a lot of corn was complained of as sour in this form, it had to be condemned—good and bad. Some seasons the loss has been as high as $25,000 to a larger packer. The use of saccharin in minute quantities in which packers of canned corn use it has *absolutely done away with* this form of spoilage. A solution of water and saccharin equal to 15 per cent sugar and 100 lbs. water would be all that any packer would ever use."

It has been argued that because saccharin is a coal tar product its use should be prohibited.

Saccharin does not contain coal tar. Coal tar is distilled and one of the liquids distilled off is toluene, and it is from toluene that saccharin is made.

It is a common belief that vegetable products are harmless, and that coal tar products must necessarily be harmful.

The most deadly poisons that we know are made from vegetable products, such as strychnine, morphine and atropine. Why argue against the use of saccharin because it is a coal tar product? Furthermore, it is a known scientific fact, that coal has its origin in the vegetable life of past ages.

It has been contended that saccharin is a mineral and for that reason its use should be prohibited. Saccharin is not a *mineral*, but admitting it for the sake of argument, so are salt and water and a number of other substances which enter into the composition of food which possess no food values whatever.

While the human system needs foods containing fat, protein and carbohydrates, it also needs foods containing minerals.

In Circular 110, isued March 25, 1911, by the U. S. Department of Agriculture, entitled "Food Customs and Diet in American Homes," on page 22 appears the following extract from an article prepared by Dr. F. C. Langworthy:

> "To be most useful, dietary standards should take into account the amount of ash constituent required by the body, for it is well known that mineral matters of different source are essential for use in forming bones and other body tissues for the repair of the body and for other purposes."

The excess quantities of these minerals, including salt, pass through the kidneys and always did do so long before saccharin was discovered. Therefore, arguments against the use of saccharin are contrary to the well known views of thousands of physicians who prescribe the use of saccharin as they would recommend the use of one kind of meat in preference to another; and the only limitation upon the amount of saccharin is the *taste* of the consumer.

In Farmers' Bulletin No. 93, entitled "Sugar as Food," issued by the Department of Agriculture December 21, 1906, appears the following statement:

> "The sugar cane is a gigantic jointed grass (*saccarum officinarum*), native in eastern India and China, numerous varieties of which are now grown in the tropical and subtropical regions of both hemispheres. Sugar from the sugar cane was probably known in China two thousand years before it was used in Europe. When merchants began to trade in the Indies it was brought westward with spices and perfumes and other rare and costly merchandise, and it was used for a long time exclusively in the preparation of medicine. An old saying to express the loss of something very essential was, 'Like an apothecary without sugar.' Greek physicians several centuries before the Christian era speak of sugar under the name of 'India salt.' It was called 'Honey made from reeds,' and said to be 'Like gum, white and brittle.' But not until the Middle Ages did Europeans have any clear idea of its origin. It was confounded with manna or was thought to exude from the stem of a plant, where it dried into a kind of gum. When in the fourteenth or fifteenth century the sugar cane from India was cultivated in Northern Africa the use of sugar greatly increased, and, as its cultiure was extended to the Canary Islands and later to the West Indies and Brazil, it became a common article of food among the well-to-do. In 1598 Hentzer, a German traveler, thus describes Queen Elizabeth, then 65 years of age: 'Her nose is a little hooked, her lips narrow, and her teeth black, a defect the English seem subject to from their great use of sugar.' By many the new food was still regarded with suspicion. It was said to be very heating, to be bad for the lungs, and even to cause apoplexy. Honey was thought to be more wholesome, because more natural than the 'products of forced invention.'"

From articles in encyclopedias we learn that for more than a thousand years after it became known in Europe it was regarded as a poison and dangerous to health, and its use was opposed by the beekeepers of the world.

All of this is interesting in view of the present attack which the sugar chemists and the sugar papers are making upon saccharin.

In an article on "Diet" prepared for the New York *World* by Dr. W. Ayres, and printed in the *Evening World* of July 6, 1911, on the editorial page, appears the following statement:

> "Sugar does more harm than any other variety of food. This is particularly true of the city man. The man who lives in the country and exercises in the open air can take care of the sugar contained in his food. Sugar has a tendency to ferment in the intestines before it has had time to be absorbed into the blood.
>
> "This fermentation causes gastritis, enteritis and colitis."

There is certainly nothing in scientific opinions of this character to justify this clamor for *sugar as a sweetener* instead of a product (saccharin), which produces none of those results.

The fact is constantly harped upon that sugar has a food value, while saccharin has none, and that saccharin costs but a tithe of the cost of sugar; while the same thing could be said of salt and water, such statements only beg the question. President Roosevelt referred this question to the Referee Board; and he did it because his own experience refuted the statements then being made by Dr. Wiley that it was a poison and deleterious to health. There is no question here, as to the consideration which has been shown to the manufacturers of saccharin by the Department of Agriculture. The only question is as to whether the Referee Board found that saccharin added to food was an "added poisonous or other added deleterious ingredient which may render such article injurious to health" within the meaning of that term as used in the Food and Drugs Act; or whether, if added to food, its addition reduced or lowered or injuriously affected the quality or strength of the food to which it was added.

The conclusions of the Referee Board must be construed in the light of the resume and conclusions of the individual experimenters. These are contained in Report No. 94, "Influence of Saccharin on the Nutrition and Health of Man." issued by the Department of Agriculture November 15, 1911. On page 233 it appears that Dr. Folin conducted his experiments upon twelve young men from among the students of the Harvard Medical School: that the doses were taken with every meal for a period of about five months, ranging from .05 gram to .95 gram per day.

"The amounts taken would therefore seem adequate to cover any practical use of the drug or sweetening purposes. Indeed, the character of the saccharin serves as an effective barrier against its being used in very large amounts. It is used chiefly as a sweetener and only in a very minor degree if at all as a preservative. Its preservative effects appear in fact to be very small indeed. Its taste, and extreme sweetness in dilute solution merges practically into an intense and persistent bitterness when the concentration of the product is materially increased."

On page 234 he says:

"Considering the number of men involved, the length of the experiment and the amounts of saccharin given, the negative character of the results obtained indicates that, so far as can be ascertained with methods at present available, saccharin in moderate doses is not injurious to the health of normal sound adults."

On page 235 he further finds:

"The men taking it (saccharin) were not informed and were unable to tell from the taste when the dose was increased. They took the final dose of .25 gram as well as they did the initial dose of .05 gram and never knew the difference. The final very large dose was also taken by the controls, subjects 'A' to 'E,' who previously had not had any saccharin. This was done in order to determine whether the subjects proper had become habituated to the drug and, therefore, would be better able to stand such a large dose than would the controls. The result of this last test was negative. Neither subjectively nor from the standpoint of metabolism could any material difference be found in the reaction of the subjects to the administration of saccharin."

Nothing therefore in the experiments of Dr. Folin justified a conclusion that, in the amounts consumed by his students, saccharin was an "added poisonous or other added deleterious ingredient which may render such article injurious to health."

The investigation carried on under the direction of Dr. Herter was performed on six subjects commencing with .3 gram daily and increasing the dose to 1.5 gram per day. This continued through a period of about five months. One of the subjects was not robust at the commencement of the experiments, as he complained of headache from time to time. From the beginning this man states that he was in good health and spirits except on certain days, when he suffered chiefly from headache; but the discontinuance of the use of saccharin failed to be followed by the cessation of the headache.

After an interval of two weeks the the use of saccharin was resumed, the dose being raised to 1 gram daily, during which time he had less headache than on previous occasions. Later the dose of saccharin was raised to 1.5 gram daily, which was continued for a week, and during this time there was *no recurrence of the headache.*

These clinical notes will be found on page 15 of the printed report. Dr. Herter comes to the conclusion (page 16) that the disturbances noted in this subject were probably in no way connected with the intake of saccharin; but, he says (page 16):

"Nevertheless from the nature of the case it is clear that the conclusion just stated merely represents the fairest inference that seemed to be permissible, and I do not consider it absolutely proven that the taking of saccharin was not in some obscure way connected with the disturbances noted."

This conclusion is negative, but it seems to be all that there is in the report to justify the conclusion arrived at by the entire Board that saccharin in large quantities is *liable* to induce disturbances of the digestion.

It is an error to say that saccharin is forbidden by the laws of enlightened nations. England is regarded as among the most enlightened of all nations, and the use of saccharin in foods is freely permitted in that country. There is no Act of Congress against its use in this country, but the agents of the sugar interests have succeeded in having laws passed against its use in a few of the states. The only chemists in Europe who have declared against the use of saccharin were the chemist-representatives of certain sugar interests. All independent investigations have found that saccharin was absolutely harmless.

Dr. Bigelow's (of U. S. Dept. of Agriculture) table of daily diet proves absolutely nothing. He might just as easily have increased his figures as to the amount of saccharin in each food and thus increased his totals, because he uses very much more than is necessary to be used. His tables showing a possible daily consumption of .45 gram is no answer to the proposition that if the use of saccharin in foods is limited to .01 of 1% it would be impossible for any consumer to get an average daily consumption of as much as .3 gram; for while it is possible for a man to eat, even for seven days, in excess of six pounds daily, he cannot keep it up for weeks, much less months; and the worst that is said against saccharin is that if it was consumed *for many months in excessive quantities, particularly above one gram daily,* it was liable to create disturbances of the digestion.

Why should so much concern be exhibited in behalf of sugar? Why should the diabetic, suffering from the excessive use of sugar, be denied the right to have his food sweetened with saccharin? What is there so sacred about the rights of sugar, that they cannot be safeguarded by a distinct declartion on the label to the effect that the article has been sweetened by saccharin and *not by cane sugar?* There could be no charge of deception in such a case; there could be no charge of substitution in such a case; and the quality or strength of the food to which the saccharin was added could not be charged to have been reduced or lowered or injuriously affected. Why should not the consumer be permitted to choose his food?

Considering the boon to humanity which saccharin is, to prohibit its use would be a crime against nature, as well as against science.

NAVY BUTTER KEEPS WELL.

Two hundred and seventy-seven samples of butter packed for the United States Navy last spring and summer were recently opened and examined by experts at the Department of Agriculture after having been kept in cold storage for from seven to ten months, and were found to be of fine quality, being graded as "extras," the highest market grade. The excellent keeping quality of this butter is attributed to the fact that it was made from pasteurized sweet cream.

The United States Navy requires about 600,000 pounds of butter, annually, as it is sometimes necessary to provision a fleet for a cruise of several months which may extend to tropical waters. At the request of the Navy Department the dairy division of the Bureau of Animal Industry, Department of Agriculture, has prepared the specifications for the Navy butter and supervised its manufacture in recent years.

The specifications call for fresh butter, made during the early summer from pasteurized sweet milk or cream; it must be strictly "extra" in grade when scored at the time of packing; the moisture must not exceed 13 per cent in tinned butter and 14 per cent in tub butter; and there must be no preservative other than common salt, the quantity of which must be between the limits of two and a half and three and a quarter per cent at the time of packing. The entire process of manufacture, packing, etc., must meet the requirements of the dairy division inspectors, who have authority to reject any product that is not up to standard.

Navy butter in 1912 was all packed in 5-pound tins, which are lacquered both inside and outside and hermetically sealed. This butter was produced in five different creameries located in three states—California, Minnesota and Pennsylvania.

The government inspectors took a sample daily at each creamery, and these samples were placed in storage at a temperature of zero or below. In order to test the keeping qualities of the butter the samples were taken out and scored when from seven to ten months old. The scoring was done by three experts independently, and the average scores ranged from 91 to 92½, the butter thus being in the grade known as "extras." The experts all agreed that it was a fine lot of storage butter, well made and very uniform.

The scientists of the dairy division have for several years been conducting experiments in making butter from pasteurized sweet cream as compared with that made from ripened or sour cream, and the results have demonstrated that butter made from sweet, pasteurized, clean-flavored cream is superior in quality and will keep longer in storage than butter made in the ordinary way.

It has been estimated by the United States Department of Agriculture that $45,000,000 is wasted annually through carelessness and ignorance in the production and handling of eggs.

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the first of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

California.

SENATE BILL NO. 375.

By Mr. Juilliard, January 17, 1913.

Referred to Committee on Judiciary.

And

ASSEMBLY BILL NO. 477.

By Mr. Bowman, January 20, 1913.

Referred to Committee on Manufactures.

An act to regulate the sale of packages, cartons, cans, boxes, commodities and containers of all kinds, with the name and address of the original manufacturer thereof, providing for the enforcement of and penalties for the violation of the provisions of this act.

SENATE BILL NO. 788.

By Senator Boynton.

Same as Assembly Bill No. 966.

An act to provide for the indicating of the net quantity of food stuffs and stuffs intended to be used or prepared for use as food for human beings when sold or offered or exposed for sale in containers and providing penalties for violation thereof.

Referred to Committee of Judiciary.

SENATE BILL NO. 1247.

By Senator Birdsall.

An act to amend an act entitled "An act for preventing, etc." Section 27 provides: "No person shall sell or offer for sale food in package form unless the quantity of the contents be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

Referred to Committee on Public Health and Quarantine.

SENATE BILL NO. 1288.

By Senator Boynton.

An act to amend section 6 of an act entitled "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," in reference to placing the true name of manufacturer, jobber or seller on label.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 9.

By Mr. Canepa, January 13, 1913.

An act to regulate the receiving and keeping of food in cold storage and regulating the sale of said food and providing a penalty for the infringement and violation of said act.

Transferred to Committee on Public Health and Quarantine.

ASSEMBLY BILL NO. 221.

By Mr. Schmitt, January 14, 1913.

To amend sections 9 and 16 of an act entitled "an act for preventing the manufacture, sale or transportation of adulterated, mislabeled, or misbranded foods and liquors, etc.," approved March 11, 1907.

Referred to Committee on Public Health and Quarantine.

ASSEMBLY BILL NO. 1252.

By Mr. Roberts.

An act prohibiting the destruction of foodstuffs, food products or food articles.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 1318.

By Mr. Bradford.

An act to amend the food law approved March 11, 1907, by adding section 27, which provides:

"No person shall sell or offer for sale food in package form unless the quantity of the contents is plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

Referred to Committee on Manufactures.

ASSEMBLY BILL NO. 1319.

By Mr. Bradford.

An act amending section 6 of the act approved March 11, 1907, entitled, "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," and further defining mislabeling and misbranding.

Referred to Committee on Manufactures.

ASSEMBLY BILL NO. 1796.

By Mr. Inman (by request).

An act to amend section 3 of the food law approved March 11, 1907, so as to provide a standard for ice cream, fruit ice cream and nut ice cream.

Referred to Committee on Public Health and Quarantine.

Colorado.

SENATE BILL NO. 111.

By Mrs. Helen Ring Robinson.

A bill for an act preventing the manufacture, sale, storage or transportation of adulterated or misbranded foods and drugs, stating wherein misbranding of foods and drugs consists, regulating the slaughter of animals and their preparation for food, providing for the appointment of a food and drug commissioner, inspectors and analysts fixing their compensations, declaring penalties for violations of the laws, rules, regulations and standards, concerning foods and drugs and repealing a similar act approved March 7, 1907.

Referred to Committee on Medical Affairs.

SENATE BILL NO. 112.

By Senator Helen R. Robinson.

An act providing for the sanitation of bakeries, canneries, packing houses, slaughter houses, dairies, creameries, cheese factories, confectioneries, restaurants, hotels, groceries, meat markets, food producing establishments, and all other places where food is prepared.

Referred to Committee on Medical Affairs.

SENATE BILL NO. 210.

By Senator Bellesfield.

A bill for an act to prevent the preparation, manufacture, packing, storing or distributing of food intended for sale, or sale of food under insanitary, unhealthful or unclean conditions or surroundings, to create a sanitary inspection, to declare that such conditions shall constitute a nuisance, and to provide for the enforcement thereof.

Has passed the senate.

On general orders in the house.

SENATE BILL NO. 363.

Br. Mr. Robinson.

A bill for an act concerning the sale of food, to regulate the safe thereof, and to forbid and prevent discrimination in the sale of food.

On general orders in the house.

HOUSE BILL NO. 367.

By Messrs. Kennedy and Andrew.

An act providing for the sanitation of bakeries, canneries, packing houses, slaughter houses, dairies, creameries, cheese factories, confectioneries, restaurants, hotels, groceries, meat markets, and all other food producing establishments, manufactories or places where food is prepared, manufactured, stored, sold or distributed, and vehicles in which food is placed for transportation; regulating health of operatives, employes, clerks, drivers and all other persons working on the premises who handle the material from which food is prepared or the finished product.

Referred to committee of whole without recommendation.

HOUSE BILL NO. 220.

By Mrs. Riddle and Mr. Goss.

An act creating the office of State Dairy Commissioner of the state of Colorado, defining the duties thereof, providing for means of fostering the dairy industry, regulating the production sale and shipment of dairy products and oleomargarine, and providing for the licensing of shippers of these. This bill would make the head of the Department of Animal Husbandry also the State Dairy Commissioner.

HOUSE BILL NO. 705.

By Mr. Persons.

A bill for an act to amend chapter 1 of the session laws of 1907, the same being an act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and repealing all acts or parts of acts in conflict therewith. The amendment consists in part in adding thereto section 12, which provides as follows:

"All foods and drugs offered for sale in package, bottles, cans or other containers shall have clearly stamped on the outside of such containers the net weight of the contents thereof and the exact composition of such foods or drugs if the same be composed of several different substances."

Referred to Committe on Merchandise and Manufacturing.

Connecticut.

HOUSE BILL NO. 937.

An act amending the act concerning the sale of food in package form and providing that no penalty shall be enforced under said act until the passage of a similar act by Congress.

Referred to Committee on Judiciary.

Idaho.

Legislature has adjourned. House Bill No. 177, amending the revised codes of Idaho, relating to the practice of pharmacy, was enacted into law.

Indiana.

Legislature has adjourned. House Bill No. 80, providing that the sale of certain commodities should be by weight or measure, was enacted into law.

Iowa.

SENATE BILL NO. 143.

By Mr. Robinson.

A net weight bill.

Withdrawn and Senate Bill No. 253 substituted.

Referred to Committee on Food and Dairy.

HOUSE BILL NO. 33.

An act to establish legal weights and measures, to provide for inspection of same and placing the enforcement of the act in charge of the dairy and food department.

Amended to exclude packages of less than 10-ounce weight. Recommended for passage. Senate bill No. 45 is duplicate and this is now in the hands of Committee on Food and Dairy.

HOUSE BILL NO. 49.

An act relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein, and defining the duties of the state dairy and food commissioner in relation thereto.

Recommended for passage.

Has passed the House and referred to the Senate Committee on Food and Dairy.

HOUSE BILL NO. 220.

By Mr. Halgrims.

To amend section 3, chapter 174 Laws of the 34th General Assembly, relating to the misbranding of foods, and requiring that foods in package form be plainly and conspicuously marked with the quantity of contents in terms of net weight.

Both bills referred to Committee on Food and Dairy.

Amended and passed the House.

HOUSE BILL NO. 616.

By Mr. Pickford.

A bill for an act to amend the laws pertaining to misbranding and adulteration of food products and providing an appropriation for expense of dairy and food department.

Referred to Committee on Appropriations.

Kansas.

Legislature has adjourned and no measures of importance to food interests were passed.

Maine.

HOUSE BILL NO. 546.

Substituted for House Bill No. 29. The Bill is a net weight measure and provides:

Section 23. For the purpose of this act an article of food in package form if sold at a greater price than five cents, shall also be deemed to be misbranded if the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count. Provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made in accordance with section thirteen of this act. And further provided that the penalties of this act shall be enforced on account of sale of food not branded in terms of weight, measure and numerical count, purchased prior to January 1st, 1914.

Massachusetts.

SENATE BILL NO. 118.

An act relative to the manufacture, sale or exchange of confectionery deleterious to the public health.

Amended and passed to be engrossed.

Passed both Houses and is in the hands of the Governor.

SENATE BILL NO. 119.

An act relative to the sale of insecticides.

Leave to withdraw asked.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

Referred to Committee on Public Health.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

Referred to Committee on Public Health.

Leave to withdraw asked.

HOUSE BILL NO. 775.

An act relative to the sale of commodities by weight.

Passed to be enacted.

Signed by Governor. This law will be published in a subsequent issue of THE AMERICAN FOOD JOURNAL.

HOUSE BILL NO. 1160.

An act to regulate the manufacture and sale of fruit syrups.

Referred to Committee on Public Health.

HOUSE BILL NO. 1162.

An act relative to false stamping and labeling of receptacles containing articles of food.

Referred to Committee on Public Health.

Amended and engrossed.

Passed the House and is now in the Senate.

HOUSE BILL NO. 1165.

An act to prohibit the adulteration of candy. This act amends section 6, chapter 213 of the Revised Laws so as to read as follows:

"Whoever, himself, or by his agent or servant, or as the agent or servant of another person, manufactures, sells or exchanges, or has in his custody or possession with intent to

sell or exchange, or exposes or offers for sale or exchange, any toys or confectionery, containing or coated wholly or in part with arsenic, talc, saccharin, glucose, ethereal flavors (unless declared to purchaser), iron rust, burnt umber, mineral in any form, fat substitutes for chocolates, wood or denatured alcohol, benzoate of soda, salicylic acid, boric acid or glue, shall be punished by a fine of not less than fifty nor more than one hundred dollars."

Referred to Committee on Public Health.

Michigan.

SENATE BILL NO. 86.

By Senator Murtha.

A bill providing for the protection of the public health and prevention of fraud and deception by prohibiting the sale, the offering for sale or exposing for sale or the having in possession with intent to sell, of adulterated or deleterious sausage, defining sausage and prescribing the penalty for violation thereof.

Referred to the Committee on Public Health.

SENATE BILL NO. 286.

By Senator Amberson.

Amendment to certain sections of the act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink. The amendments make it mandatory to label packages with the net weight or measure, or numerical count, as the case may be. However, reasonable variations and tolerations shall be permitted, as established and promulgated by the Dairy and Food Commissioner. It is also made compulsory that "Every article of food as defined in the statutes of this state shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, except where the parties otherwise agree, and shall be labeled in accordance with the provisions of the food and beverage laws of this state."

Referred to Committee on Public Health.

Recommended to pass.

SENATE BILL NO. 326.

By Mr. Case.

A bill to define and fix the standard of purity for foods, beverages, condiments, confectionery and drugs in this state in prosecutions arising under the food, beverage and drug laws of the State of Michigan.

Referred to Committee on Public Health.

Passed the Senate and is now in House Committee on Public Health.

SENATE BILL NO. 341.

By Senator Weadock.

A bill to regulate the storage of food products, and to provide penalties for violation thereof.

Referred to Committee on Public Health.

SENATE BILL NO. 355.

By Mr. McGregor.

A bill to provide for the branding of certain articles of food held in cold storage, to provide regulations concerning the same and to provide penalties for the violation thereof.

Referred to Committee on Public Health.

Recommended for passage.

SENATE BILL NO. 426.

By Senator Verdier.

An act for preventing the manufacture, sale or transportation of adulterated, misbranded poisonous or deleterious foods drugs, medicines and liquors within Michigan.

Referred to Committee on Public Health.

HOUSE BILL NO. 69.

By Representative Whelan, January 8, 1913.

A bill relating to cold storage and refrigerating warehouses, the disposition or sale of the food kept or preserved therein and defining the duties of the State Dairy and Food Commissioner in relation thereto.

Referred to Committee on Public Health.

Placed on general orders.

HOUSE BILL NO. 547.

By Mr. Crapser.

A bill to amend sections 5, 6, 7 and 8 of act No. 193 of the Public Acts of 1885, entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink, being sections 5014, 5015, 5016, 5017 of the compiled laws of 1897, relative to the manufacture, sale and branding of cheese."

Referred to Committee on Public Health.

HOUSE BILL NO. 574.

By Mr. Lee.

A bill in relation to the manufacture and sale of vinegar. Section 2 provides that "the word 'vinegar' as used herein is limited to a water solution of acetic acid derived by the alcoholic and subsequent acetous fermentation of fruits, vegetables, grain, sugar or syrups, and if not distilled must carry in solution the extractive matter derived solely from the substances indicated on the label as its source."

Referred to Committee on Public Health.

Minnesota.

SENATE BILL NO. 4.

By Mr. Fosseen.

A bill for an act to prevent deception in the sale of cold storage products, and fixing the punishment for violation thereof. The bill covers fish, oysters, poultry, eggs and butter.

Referred to Committee on Public Health.

SENATE BILL NO. 732.

By Mr. Sullivan.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight, the net measure or numerical count, of the contents thereof.

Referred to Committee on Commerce and Trade.

SENATE BILL NO. 800.

By V. Johnson and Mr. Foseen.

A bill to regulate the weighing, measuring and sale of commodities, providing that all butter, meat and meat products shall be sold by net weight.

Referred to Committee on Commerce and Trade.

SENATE BILL NO. 817.

Mr. G. H. Sullivan.

A bill for an act to require the marking of the net weight, measure or numerical count on the outside of packages of food offered for sale in package form. Reasonable variations are provided for.

Referred to Committee on General Legislature.

Reported to pass.

HOUSE BILL NO. 128.

A bill for an act to amend section 1774, revised laws of Minnesota, 1905, so as to prohibit the misbranding of beverages.

Passed both branches of legislature.

Enacted into law. Will be published in full in a subsequent issue of THE AMERICAN FOOD JOURNAL.

HOUSE BILL NO. 191.

By Mr. Conley.

An act making it a misdemeanor to sell goods with a false stamp.

Referred to Committee on Commerce and Trade.

Passed the House and is in the Senate.

HOUSE BILL NO. 319.

By Mr. Dunn.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight or the net measure of the contents thereof, and to provide penalties and punishment for violations of this act.

Transferred to Committee on Public Health and Pure Foods.

Indefinitely postponed.

HOUSE BILL NO. 894.

By Mr. Sanborn.

An act to amend the laws so as to prohibit "the use of any dye, harmless or otherwise, to color or stain a food in a manner whereby damage or inferiority is concealed" and listing such mineral dyes or coal-tar dyes as are permitted. When a permitted color is used its presence must be declared on the label.

Referred to Committee on Public Health and Pure Food.

HOUSE BILL NO. 959.

By Mr. Larson.

A bill for an act entitled "An act to amend chapter 50 of the revised laws of Minnesota for 1905, relating to weights and measures."

Referred to Committee on Commerce and Retail.

HOUSE BILL NO. 1049.

By Mr. Westlake.

A bill to require marking with net weight, measure or numerical count on food packages. Provides for reasonable variations.

Referred to Committee on Commerce and Retail Trade.

Recommended to pass.

Missouri.

Legislature has adjourned and a law was passed making the State Food Commissioner's headquarters in St. Louis and the Dairy Commissioner at Columbia.

Montana.

Legislature has adjourned. Bill No. 180 was enacted into law and will be published in a subsequent issue of **The American Food Journal.**

Nebraska.

SENATE BILL NO. 72.

By Mr. Haarmann, January 17, 1913.

A bill for an act to repeal chapter 4, Session Laws of 1897, being sections 9859, 9860, 9861, 9862, 9863, 9864 and 9865 of Cobey's Annotated Statutes for 1911, regulating the manufacture and sale of vinegars.

Referred to Committee on Manufacturing and Commerce.

Indefinitely postponed.

SENATE BILL NO. 155.

By Mr. Hoasty.

An act making it unlawful for any person, firm, company or corporation to print, emboss or stencil or in any way to place the name of any other than his or their own name on such article as is manufactured by such person, firm or company or corporation any other name or title whether real or fictitious, placed upon any article manufactured than that of the person, firm, company or corporation so manufacturing.

Indefinitely postponed.

SENATE BILL NO. 239.

By Mr. Haarmann.

A bill for an act to provide for the manufacture, sale and branding of vinegar.

Passed the senate.

Placed on house general file.

HOUSE BILL NO. 377.

By Mr. Frank C. Yates.

A bill to amend section 9825 of Colby's annotated statutes of the state of Nebraska for 1911, relating to misbranding of drugs.

Referred to Committee on Retail and Commerce.

Placed on general file.

Amended and passed the House. Is now in Senate Committee on Public Health.

HOUSE BILL NO. 384.

By Mr. Druesedow et al.

An act to make it unlawful "for any person, firm, association, corporation or co-partnership to store butter, eggs or other perishable food stuffs for a longer period than 90 days. Such food stuffs when so stored shall have thereon a plain, white wrapper with red letters and figures printed in clear, legible type, showing the date on which such food stuff was stored.

Referred to Committee on Manufactures and Commerce.

HOUSE BILL NO. 697.

By Representative Anderson.

Section 1 of this bill reads:

"It is hereby declared unlawful to sell or offer for sale any patent medicine, drug, stock food or stock medicine, or human food preparation on the container of which is printed, stamped or written any false or fraudulent or misleading statement as to the curative value of any such patent medicine or drug or stock food or stock medicine, or the food value of any human food product or preparation; or as to which any such false or fraudulent or misleading claims have been made by means of printed circulars or other printed matter or by advertising the same in any newspaper."

Referred to Committee on Medical Societies.

HOUSE BILL NO. 826.

By F. L. Bollen.

An act to create and maintain a food, drug, dairy and oil commission for the state of Nebraska, to define its powers and duties, to provide for the inspection of foods, drugs, dairy products and oils, etc.

Referred to Committee on Judiciary.

Amended and recommended to pass.

Nevada.

Legislature has adjourned. Senate Bill No. 81 passed both Houses, and will without doubt be signed by the Governor. Will be published in a later issue of The American Food Journal.

New Hampshire.

HOUSE BILL NO. 167.

By Mr. Brennan.

An act establishing a standard of weights and measures.

Referred to Committee on Judiciary.

New Mexico.

Legislature has adjourned. No laws of importance to food interests were enacted.

New Jersey.

HOUSE BILL NO. 797.

By Mr. Nutting.

A bill to regulate and control sale of canned or packed food products requiring labels or stamps showing date upon which such food was placed within can or receptacle containing same.

Referred to Committee on Public Health.

New York.

HOUSE BILL NO. 451.

By Mr. Willmott, January 22, 1913.

An act to amend the general business law in relation to the marking of canned goods and providing for placing on label date when packed.

Referred to General Laws Committee.

Ohio.

HOUSE BILL NO. 53.

By Mr. King.

A bill to amend section 7965 of the General Code, relating to the duties of the State Sealer of Weights and Measures.

Passed the house.

Enacted into law without amendment and will be published in full in a subsequent issue of The American Food Journal.

HOUSE BILL NO. 54.

By Mr. King.

A bill to amend section 6418-1 of the General Code, relating to articles sold by avoirdupois weight or numerical count.

Passed both Houses.

HOUSE BILL NO. 210.

A bill to amend section 375 of the General Code, relating to the duties of the State Dairy and Food Commissioner.

Passed the house.

In senate Committee on Agriculture.

Passed Senate without amendment.

HOUSE BILL NO. 418.

By Mr. Woodworth.

A bill relating to food, drink and flavoring extracts and labeling of same.

Referred to Committee on Dairy and Foods.

HOUSE BILL NO. 450.

By Mr. Thomas.

An act to amend section 13423 of the General Code relative to special jurisdiction of jurists, police judges and mayors by adding a sub-section 14 as follows: "The prevention of short weights and measures and all violations of the weights and measures law."

In committee.

Oklahoma.

Regular Legislature adjourned and a special session is now in progress. At the regular session no laws of importance to food interests were passed.

Oregon.

Legislature has adjourned. House Bill No. 166 was enacted into law. The law amends the general laws of Oregon relating to misbranding of foods and drugs, or articles which enter into their composition. Will be published in a subsequent issue of THE AMERICAN FOOD JOURNAL.

Pennsylvania.

SENATE BILL NO. 5.

By Mr. Gerberich.

An act relating to food, providing for the protection of the public health, and the prevention of fraud and deception, by prohibiting the manufacture or sale, the offering for sale or exposing for sale, or the having in possession with intent to sell, of adulterated, misbranded or deleterious foods, and of foods short in weight or measure.

Referred to Committee on Public Health and Sanitation.

Reported favorable with amendment prohibiting use of any benzoate of soda and permitting half the amount of sulphur dioxide now allowed by law.

SENATE BILL NO. 6.

An act for the protection of the public health by providing for the regulation and control of the sanitary conditions surrounding the preparation, handling, storage and serving of foods in hotels, restaurants and dining cars; defining hotels, restaurants and dining cars; imposing certain duties upon the dairy and food commissioner in reference to this act; and providing penalties for violation of same.

Referred to Committee on Public Health.

SENATE BILL NO. 7.

An act relating to non-alcoholic drinks, defining same and prohibiting the manufacture, sale, offering for sale, exposing for sale, or having in possession with intent to sell, of any adulterated or misbranded non-alcoholic drinks.

Referred to Committee on Public Health and Sanitation

SENATE BILL NO. 8.

An act for the protection of the public health and the prevention of fraud and deception in the manufacture, labeling or sale of milk products; defining such milk products, fixing the standard thereof, and providing penalties for the violation of the provisions of the act.

Referred to Committee on Public Health.

SENATE BILL NO. 9.

An act for the protection of the public health and the prevention of fraud and deception, by regulating the sale of cold storage poultry, game, eggs and fish, providing penalties for the violation thereof, and providing for the enforcement thereof.

In Committee on Public Health.

SENATE BILL NO. 10.

By Mr. Gerberich.

An act to amend an act approved May 11, 1911, entitled, "an act to provide for appointment of county and city inspectors of weights and measures, providing for their compensation and expenses, prescribing their duties, prohibiting vendors from giving false or insufficient weights and fixing the penalties for violation of the provisions thereof," by regulating the appointment and compensation of the inspectors, extending their powers and duties and changing the penalties for violation of said act.

Referred to Committee on Judiciary General.

SENATE BILL NO. 11.

By Mr. Gerberich.

A bill defining commodities and regulating sale thereof.

Referred to Committee on Public Health and Sanitation.

Reported favorably March 28.

SENATE BILL NO. 12.

An act supplementary to an act entitled "An act for the protection of the public health, by prohibiting the sale, offering for sale, exposing for sale, or having in possession with intent to sell, of eggs unfit for food as therein defined, and prohibiting the use of such eggs in the preparation of food products; providing penalties for the violation thereof, and providing for the enforcement thereof," approved March 11, 1909, providing for the denaturing by kerosene of all eggs unfit for food, within the meaning of said act, and providing penalties for the violation thereof.

Passed senate and second reading in house.

Placed on postponed calendar.

SENATE BILL NO. 280.

By Mr. Gerberich, February 17.

An act for the protection of the public health and providing that hotels, restaurants, and other public eating places shall not employ helpers having communicable diseases, and further stipulates to what use utensils in the kitchen and dining room shall be put.

Referred to Committee on Public Health and Sanitation.

HOUSE BILL NO. 53.

By Mr. Gans, January 21.

An act regulating the sale of certain food that shall have been kept in cold storage.

Referred to Committee on Public Health and Sanitation.

Postponed on third reading.

Passed the House and is now in Senate Committee on Public Health.

HOUSE BILL NO. 667.

By Mr. G. K. Young, February 13.

An act to amend the act approved May 29, 1901, entitled "An act to prohibit the manufacture and sale of oleomargarine, butterine and other similar products when colored in imitation of yellow butter, to provide for license fees of manufacturers and sellers, and to regulate the sale and manufacture of these products when not colored in imitation of yellow butter.

Referred to Committee on Public Health and Sanitation.

Rhode Island.

HOUSE BILL NO. 24.

By Representative Baldwin, January 14, 1913.

An act regulating the sale of food products.

Ordered to table until appointment of committees.

Referred to Committee on Judiciary.

HOUSE BILL NO. 117.

By John H. Richards.

An act amending section 6 of chapter 183 of the general laws so as to read:

Section 6. A drug or an article of food, or an article which enters into the composition of food, shall be deemed to be misbranded:

First. If the package containing it, or the label on such package shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, or if the same is falsely branded as to the state, territory, or country in which it is manufactured or produced, or if such article is preserved or packed in tin can, glass or earthen jar or vessel has not thereon plainly stamped or marked the day, month and year when such article was placed therein, or where said tin can, glass or earthen jar or vessel is relabeled or recovered and the label or cover thereof shall fail to have a statement of said relabeling or recovering and the date when such article was placed therein.

Referred to Committee on Judiciary.

South Dakota.

Legislature has adjourned. House Bill No. 294 and House Bill No. 295 were both enacted into laws and will be published in a subsequent issue of THE AMERICAN FOOD JOURNAL. No. 295 creates a food and drug department for South Dakota, and No. 294 enlarges the duties of Food Commissioner and provides for sanitation and labeling of foods.

Tennessee.

SENATE BILL NO. 152.

An act to prevent frauds in the measure or measurement of articles sold in Tennessee.

Referred to committee.

On third reading.

SENATE BILL NO. 530.

By Mr. Crawford, February 21, 1913.

An act to amend sub-section 3 of section 4 of chapter 297 of the acts of 1907, relating to food, to read as follows:

"If in package form, the quantity of the contents be not conspicuously, plainly and correctly marked on the outside of the package in terms of weight, measure or numerical count provided, that reasonable variations shall be established by rules and regulations to be promulgated by the State Pure Food and Drugs Inspector; and provided, further, that said variations shall be made uniform with similar variations established by the United States Department of Agriculture whenever said department shall establish same."

Referred to committee.

On second reading.

Texas.

SENATE BILL NO. 44.

By Mr. Gibson.

Reported from committee with adverse majority and favorable minority.

and

HOUSE BILL NO. 19.

By Mr. Morris.

A bill to be entitled "an act to prevent fraud upon the public by requiring manufacturers to place their own name and addresses upon manufactured articles, together with a statement of the material or materials used." The act applies to any "article or commodity that enters into commerce."

Adversely reported.

SENATE BILL NO. 357.

By Mr. Townsend.

An act to establish standards of weights and measures in the state of Texas, to create the office of Commissioner of Weights and Measures, to prescribe his duties, etc. The bill contains a net weight clause requiring containers to be marked with net weight or numerical count, with reasonable variations.

Favorably reported.

SENATE BILL NO. 426.

An act to prohibit the sale or exchange, to children or minors, of any beverage syrup, mixture, or compound in the preparation of which caffein or extracts containing caffein have been used, and fixing a penalty for violation of the act.

Favorably reported.

HOUSE BILL NO. 205.

By Mr. Morris.

An act to prohibit and prevent the use of benzoates and saccharin and mixtures containing benzoates and saccharin, in the preparation of food and beverage compounds.

Adversely reported.

HOUSE BILL NO. 316.

By Mr. Morris.

An act providing for the licensing of the sale or exchange of any beverage, syrup, mixture or compound in the preparation of which caffein or extracts of caffein have been used; prohibiting their sale or exchange to minors and fixing penalties.

Adversely reported.

Utah.

Legislature has adjourned. Senate Bill No. 39, being a general food and drugs measure, was enacted into law. Also House Bill No. 24, relating to the purchasing of milk, cream or butter fat for the purpose of manufacture, or buying of poultry or eggs for the purpose of sale or storage, to create a monopoly or destroy a competitor, was enacted into law. These measures will be published in full in subsequent issues of THE AMERICAN FOOD JOURNAL.

Vermont.

Legislature has adjourned. No laws of importance to food interests were enacted.

West Virginia.

Legislature has adjourned. No laws of importance to food interests were enacted.

Wisconsin.

HOUSE BILL NO. 306.

By Mr. Hull.

A bill to direct the industrial commission to establish a system of direct marketing, and making an appropriation.

Referred to Committee on Agriculture.

Recommended and referred to Committee on third reading.

HOUSE BILL NO. 393.

By Mr. Axel Johnson, February 13.

A bill to amend section 1665 of the statutes, relating to dry commodity standards.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 627.

By Mr. Rosa.

To amend Section 1791n-1 and 1791n-4 of the statutes, relating to the restraint of trade in dairy products; to amend subsection 3 of Section 1494aa and Section 1494ac of the statutes, relating to the Babcock milk and cream test; to amend Section 4601a of the statutes, relating to canned goods; to amend subdivision (12) of Section 4601-4a of the statutes, relating to rice, and providing a penalty.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 668.

By Mr. Hedding.

A bill to confer upon cities of the first class certain powers in relation to the regulation of weights and measures.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 754.

An act to amend section 4601-1a of the statutes, relating to the sale of syrups, molasses, glucose mixtures, and maple syrup mixtures.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 758.

By Mr. Hurlbut.

An act to amend section 4601aa of the statutes, relating to the branding of foods. This bill requires the net weight or numerical count of contents to be placed on package goods, also the name and address of manufacturer, packer or dealer. Reasonable variations are provided for in stating contents.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 948.

By Mr. Hedding.

A bill to create sections 4601am to 4601as, inclusive, relating to the use, care and disposition of vials, cans, bottles and other receptacles for food products, including beverages and drugs.

Referred to Committee on Public Welfare.

Wyoming.

Legislature has adjourned. Senate Bill No. 6, relating to the adulteration of drugs, confectionery and foods was enacted into law. This measure is published in full in this issue of THE AMERICAN FOOD JOURNAL.

NONE BUT INSPECTED MEAT IN NEW YORK.

The Board of Health of the City of New York has revised its meat inspection rules so that no meat carcass or meat product of any kind except canned meats shall be brought into New York City without having been inspected by the city or federal authorities, or unless it has passed authorized state or city inspection of a standard equal to that of New York City. Such inspection must be post-mortem. The regulation takes effect after July 1 next, and will prevent the shipment into New York City of country calves and other meat shipments from New York state which now escape federal inspection.

NEW STATE FOOD AND SANITARY LAWS

WYOMING

AN ACT

To amend and re-enact Sections 2, 8, 10 and 11 of Chapter 104, Session Laws of Wyoming, 1911, relating to the appointment of assistants to the State Chemist, and prescribing their salaries and duties; for preventing the manufacture, sale, transportation of adulterated, misbranded, poisonous or deleterious foods, drugs, medicines, and liquors within this State; providing for standards for kerosene and gasoline and the labeling and marking of same; providing for standards of purity for foods; enacting a provision for the prosecution of foreign companies, corporations or firms; repealing all acts and parts of acts in conflict with the provisions of this act.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WYOMING:

SECTION 1. That Section 2, Chapter 104, Session Laws, 1911, be amended and re-enacted so as to read as follows:

SEC. 2. The State Chemist by, and with the approval of the Governor is hereby authorized to employ an assistant to the State Chemist, who will receive a salary of fifteen hundred dollars ($1500.00) per year for his services, and that in the same manner two assistants to the State Chemist may be employed who shall each receive a salary of one thousand dollars ($1000.00) per year for their services; the salaries to be paid by the State of Wyoming out of any moneys not otherwise appropriated, the same to be paid by the State Auditor in the manner provided for the payment of such accounts against the State. The assistant chemists shall keep their offices at the University of Wyoming and the Board of Trustees of the said University shall furnish the necessary room for the carrying out of the provisions of this chapter. The assistant chemists shall perform such duties as they may be required to perform by the State Chemist.

SEC. 2. That Section 8, of Chapter 104, Session Laws, 1911, be amended and re-enacted so as to read as follows:

SEC. 8. That for the purpose of this act an article shall be deemed to be adulterated:

IN CASE OF DRUGS:

First—If, when a drug is sold under, or by a name recognized in the United States Pharmacopoeia, or National Formulary, it differs from the standard of strength, quality, or purity, as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation; provided, that no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision, if the standard of strength, quality or purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary.

Second—If its strength or purity shall fall below the professed standard or quality under which it is sold.

IN THE CASE OF CONFECTIONERY:

If it contains terra alba, barytes, talc, chrome yellor, or other mineral substances or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt or spirituous liquor, or compound, or narcotic drug.

IN THE CASE OF FOOD:

First—If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

Second—If any substance has been substituted wholly, or in part, for the article.

Third—If any valuable constituent of the article has been wholly or in part abstracted.

Fourth—If it be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed.

Fifth—If it contains any added poisonous or other added deleterious ingredient, which may render such article injurious to health; provided, that when in the preparation of food products for shipment they are preserved by an external application, applied in such a manner that the preservative is necessarily removed, mechanically, or by maceration in water, or otherwise, and directions for the removal of said preservative shall be printed on the covering of the package, the provisions of this act shall be construed as applying only when said products are ready for consumption.

Sixth—If it be coated with talc, clay, paraffin, varnish, shellac or any other injurious substances.

Seventh—If it consists in whole or in part of filthy, decomposed or putrid animal or vegetable substances, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

Eighth—If, in case of poultry, domestic or wild fowls, or any slaughtered rabbits, squirrels, or other small animals wild or tame, the crops, entrails and other offensive parts are not properly drawn or removed."

SEC. 3. That Section 10, of Chapter 104, Session Laws, 1911, be amended and re-enacted so as to read as follows:

"SEC. 10. All illuminating oils sold or offered for sale in this state, shall conform to the following conditions:

First—The color shall be water white, but a slight bluish opalescence is permissible.

Second—It shall not contain more than a trace of any sulphur compound.

Third—It shall not contain water nor tar-like matter.

Fourth—It shall not contain more than five per cent by weight, of residue, after being distilled at a temperature not more than five hundred seventy-two degrees (572) Fahrenheit.

Fifth—It shall not give a flash test below one hundred ten degrees (110) Fahrenheit, closed test, and the tester used for this purpose shall be the Foster Automatic Closed Tester.

Sixth—Starting with an initial oil level or not less than two inches below the top of the wick tube, it shall not show a decrease in illuminating power of more than fifteen (15) per cent after burning seven and one-half hours during which time the oil in the lamp is maintained at a temperature of fifty (50) degrees Fahrenheit, and at least eighty-five (85) per cent of the oil is consumed. The method of making this test shall be that which has been adopted by the International Petroleum Commission.

Seventh—Any oils that present a yellowish or dark coloring, or dirty appearance to the eye, may be rejected and disapproved for illuminating purposes by the Dairy, Food and Oil Commissioner, or his deputies, without further tests, and the further sale thereof ordered discontinued and such discoloration shall be prima facie evidence that they are not such a product as is properly subject to sale for illumination purposes within this state. The State Dairy, Food and Oil Commissioner, or his deputies, are not required in every case to have a complete analysis of oils inspected to ascertain every form of impurities, such as sulphur, and tar-like matter, but, whenever, in the opinion of the State Dairy, Food and Oil Commissioner, or his deputies, it is necessary that any of the oil provided for in this section shall be more thoroughly analyzed, it shall be his duty to procure a sample of such oil and forward it to the State Chemist for a more detailed analysis to determine in what particular the impurities or imperfections exist, and if upon such analysis, it is demonstrated that some other impurity or imperfections exist in said oil, not specified in this act, that render such oil unfit for illuminating purposes, it shall be his duty to reject such oil for such purposes. For the purpose of this Chapter, gasoline shall be deemed to be subject to the same provisions and control as provided in this Chapter for illuminating oils, and shall also be subject to the following conditions.

First—It shall not exhibit an initial boiling point above one hundred fifteen degrees (115) Fahrenheit, which shall be taken at the time the first drop falls from the end of the Engler apparatus, while being distilled at the rate of two (2) cubic centimeters per minute and upon continuation of the distillation there shall be at least ninety-eight (98) per cent by volume distilled over at a temperature not above three

hundred fifty degrees (350) Fahrenheit and shall show by the temperature taken at each ten per cent (10%) of the distillation that the product does not consist of tops and bottoms, but of a uniform product from the beginning of the distillation to the end.

Second—It shall be unlawful for any manufacturer, dealer, or vendor to sell or offer for sale any petroleum product known as gasoline for lighting or power purposes unless every barrel, cask or can containing such product be branded with the word "Gasoline" in large red letters at least one and one-half inches in size and all gasoline of sixty-six degrees (66) gravity, Baume or over to be branded with the figures denoting the gravity. No dealer shall deliver gasoline in a barrel, cask, package or can stenciled or stamped other than above. Every person purchasing gasoline for use shall procure and keep the same only in barrels, casks, packages or cans stenciled as above, and no person keeping for use or using kerosene shall put the same in any barrel, cask, package or can stenciled or stamped as above. If any manufacturer, vendor, or dealer shall adulterate any gasoline with water, or other injurious substance, he shall be subject to a penalty as hereinafter provided for, and shall be liable to the party injured for any resultant damages in civil action."

Sec. 4. That Section 11, of Chapter 104, Session Laws, 1911, be amended and re-enacted so as to read as follows:

"Sec. 11. Under the aforesaid rules and regulations. representative samples shall be collected by the State Dairy, Food and Oil Commissioner, or his deputies. Samples may be purchased in the open market, and, if in bulk, the marks, brands, or tags upon the package, carton, wrapper or other container, and the accompanying written or printed matter shall be noted. The collector shall also note the name of the vendor and the agent through whom the sale was actually made, together with the date of purchase. Samples shall be divided into three parts, each part shall be labeled with identifying marks. One of the parts shall be delivered to the person from whom the purchase was made, or if a guaranty has been given as hereinafter provided, such parts be delivered to the guarantor. One of the parts shall be sent to the State Chemist and one part shall be held, under seal, by the State Dairy, Food and Oil Commissioner. The parts of the sample so divided shall be sealed by the collector, with seals provided for the purpose. For the purpose of this Chapter all samples which do not show the net weight properly marked on top of the box, package, or on the face of the principal label, may be disapproved by the State Dairy, Food and Oil Commissioner without further test and the absence of the net weight properly labeled shall be prima facie evidence that they are misbranded and need not be sent to the State Chemist for examination, but may be certified to the County Attorney directly by the State Dairy, Food and Oil Commissioner without the certificate of the State Chemist."

Sec. 5. The State, Dairy, Food and Oil Commissioner, in executing the provisions of all laws which come under his jurisdiction shall accept such of the Rules and Regulations of the United States Department of Agriculture as he may deem necessary and adopt the standards of purity for foods as laid down by the United States Department of Agriculture, also make, promulgate and enforce such other rules and regulations as may seem necessary and proper to a prompt and effective enforcement of the laws.

Sec. 6. For the purpose of this Chapter, and for the purpose of getting service on foreign companies, corporations or firms, any agent or person who shall sell, keep for sale, offer for sale or handle goods made, sold or handled by said firms, company or corporation, shall be deemed an agent thereof, upon whom the process of any court of this state of competent jurisdiction may be served for the purpose of carrying into effect the provisions of this Chapter and services upon such agent shall be binding upon his principals.

Sec. 7. Sections 2, 8, 10 and 11 of Chapter 104, Session Laws of Wyoming, 1911, and all acts and parts of acts in conflict with the provisions of this act, are hereby repealed.

Sec. 8. That whereas an emergency exists for the immediate taking effect of this act, the same shall take effect and be in full force from and after its passage.

Martin L. Pratt, Speaker of the House. Birney H. Sage, President of the Senate.

Approved February 28, 1913, at 10:40 A. M.

Joseph M. Carey, Governor.

Status of Pennsylvania Food Legislation

HARRISBURG, Pa. March 25.—The biennial fight over the amount of coloring matter which may be used in oleomargerine is on in the Pennsylvania legislature and the issue is being drawn very sharply between the advocates of coloring matter on the ground that oleo is the "poor man's butter" and the Grangers who are insisting upon the retention of the present law. The administration is also in the field with a bill fixing a standard of color at 70 per cent white.

The Richards bill which allows coloring matter and cuts down the license fees to be paid by retailers, hotel and boarding house keepers leaving the manufacturers' and wholesalers' licenses at the same figures as in the present law, is before the house for action with prospects of a bitter fight. The city members are favorable to the bill as a rule and many from smaller industrial communities are also favorable to it, but its chances in the senate are problematical. This bill was taken up in preference to the Young bill which prohibited coloring matter but abolished all licenses except those of manufacturers and wholesalers.

The administration bill, which was drawn up by Dairy and Food Commissioner James Foust, appeared in the senate. It is said to be modelled on federal standards. Every effort will be made to enact this into a law.

Other food legislation is marking time. The senate committee made the pure food law similar to the present law in permission to use a limited amount of benzoate of soda and sulphur dioxide, after a spirited hearing in which arguments were made that until something should be done to enable manufacturers to work out a new process these preservatives should be permitted in small quantities, provided due and sufficient notice was given on the label.

The pure vinegar bill, to which farmers are opposed, is pending in the senate and may be called up any day. The bill is said to be a fair one but Granger interests are fighting it.

The bill to provide that all rotten eggs shall be treated with kerosene has become a law, the first of the bills of that character to receive executive approval, and is being enforced in Philadelphia.

The bill to provide against employment of any person afflicted with disease in places where foods are handled or manufactured is regarded as almost certain to pass, but the regulation of drinking cups is rather doubtful.

Manufacturers are making a fight against the Geary house bill which establishes standards of pints, quarts and bushels of various commodities. It is known as the "Berry box" bill because it provides that they shall be either pints or quarts. A long list of commodities with their weight is given in the measure. What is being opposed by manufacturers is the requirement that net weight shall be placed on all packages or containers. The retailers are helping it along and have enlisted the aid of officials of other states.

One of the last bills to appear in the house before the time for offering of new legislation expired would revolutionize the method of sampling foods in the state. It is an old bill and would provide, in brief, that when samples are taken a portion shall be given to the person from whom food, drink or condiment is obtained and that he shall have the privilege of having his own chemist make an analysis which may be presented in court.

Rumors have been heard of a bill to divide the dairy and food ends of the commissioner's office, but such a bill would have a mighty slim chance of getting anywhere and is not regarded as at all likely to show up this session.

BULLETIN ON WHITE FLY.

Bulletin 120, Bureau of Entomology, United States Department of Agriculture, tells of an interesting trip of one of the department's scientists to India and the Orient in search of natural enemies of the citrus white fly. This insect causes widespread damage to the citrus fruit industry of the country. The trip resulted in the discovery in several species of insects which are destructive to the white fly, but further investigation will be necessary before their practical worth in destroying the orange and lemon enemy is demonstrated.

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SAME HERE.

They are crying out against extravagance in England also. The *Daily Mail* says that half well-to-do London is spending twice as much on unnecessary things as it did a few years ago. It has become the custom instead of the exception to take a taxicab, and while taxis are cheap in London as compared with New York, nevertheless "shillings slip from the pocket as if by magic." Moreover, not only have food prices in the restaurants risen, but "there is an ever widening circle of people ready to order and pay for expensive food, and once they acquire the habit of doing so they keep to it as long as they have money or credit." Thus the world progresses. It is the same way over here, and among all classes of people, regardless of race, color or previous condition of servitude. We were told the other day, for example, a story of the case of a colored boy in this state who, after working for a year as a house boy, was taken back to the plantation where he soon felt positively sick because he was unable to eat the "victuals" upon which he had been raised. A year in town had spoiled him as a farm hand. He had had a taste of high living—high for him at any rate— and he "honed" for more. Just so the man who grows accustomed to canvasback duck may enjoy getting back for a day to the corned beef and cabbage of his youth—but only for a day. Not always is education to be applauded. Sometimes it is a very curious thing.—*Charleston News and Courier.*

NATIONAL MARKETING CONFERENCE.

In the First National Conference on Marketing and Farm Credits, which is to be held in Chicago April 8, 9 and 10, 1913, the stage is set for a great gathering of prominent and well-known men in all lines of professional and business activity who assemble to bring about improved economic conditions for producer and consumer. It marks the beginning of a united effort on the part of the American people to work out some solution whereby a more just and equitable division of profits may be enjoyed by producer and consumer, proportional to the services rendered by the individual.

All sessions of the conference are to be open sessions, and open to full, free and frank discussions of how to create better methods of distributing and marketing farm products. Big men of the country, our new Secretary of Agriculture, David F. Houston, President Van Hise of Wisconsin University, President Waters of Kansas Agricultural College, President Mezes of Texas University, B. F. Yoakum, the well-known railroad man, B. F. Harris, Illinois banker-farmer, and others of like caliber, will present addresses and lead the discussions, but each and every man in attendance will have a chance to get into the discussion if he will.

The opening session will be given over to a brief presentation of the problems in hand, so far as marketing is concerned. The following three sessions will consist in presenting workable concrete methods of solving these problems. One session will be given over to transportation problems and the work which the federal government can and should do through the establishment of a national bureau of markets. Another session will be devoted to the problem of farm credits, with studies and explantions of farm credit systems in Europe and how they may be adapted to conditions in this country.

The conference will doubtless be well attended, as it has been endorsed by many prominent people. Such action as is deemed necessary and advisble, after all, in the discussion line has been said and done, will be taken by the various conference committees.

Charles W. Holman, 1408-1409 Steger Building, Chicago, Ill., is secretary of the conference and from him full details can be secured.

PEANUT BUTTER.

Peanut butter is in reality a very simple preparation, consisting merely of fresh-roasted peanuts ground finely and salted to suit the taste. Several large factories and a large number of smaller ones are now devoted to the manufacture of this product with which to supply the rapidly increasing demand. Some of the larger factories are almost models in their construction, equipment, and management, while many of the smaller establishments, which have no elaborate equipment, are turning out an excellent product.

Peanut butter was first manufactured and offered for sale as a food for invalids, but the article was soon adopted by many persons who for one reason or another, such as preference for vegetable foods only, objected to the use of ordinary dairy butter. It soon outgrew this condition of limited use, and its development on a commercial scale has been a general product. It was never intended that this product should be used as a substitute for or a competitor of butter, but as a luncheon delicacy and to add variety to the diet. Peanut butter is a wholesome and nutritious food product and has become a popular article upon our markets. Last year one manufacturer used over 130 cars of shelled peanuts in the production of 6,000,000 small jars of this food. Other manufacturers used large quantites, the total consumption of peanuts for the manufacture of peanut butter alone amounting during the year of 1911 to approximately 1,000 cars of shelled goods, or 1,000,000 bushels.

In order to produce high-class peanut butter the manufacturer must employ the best materials. On the other hand, the use of the best stock obtainable will be of little avail unless the work of converting into a saleable product is conducted in a sanitary manner.

Egg production in the United States increased from 450 million dozens in 1880 to 1,300 million dozens in 1900 and 1,705 million dozens in 1912. Exports have also greatly increased, being only 86 thousand dozens in 1880, going up to 5⅔ million dozens in 1910, 13¼ million dozens in 1911, and 19 million dozens last year.

AMERICANS WANT PREPARED PISTACHIO NUTS.

A report from Aleppo in the Levant says that the demand for pistachios from the United States is increasing rapidly. Last year there were shipped to this country nuts to more than a hundred thousand dollars' value. While other countries purchase the pistachio nuts unshelled, or shelled without any preparation, American buyers generally ask for salted and roasted pistachios, packed in soldered tins.

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Far-Reaching Decision Affecting Food Control

IN THIS issue of THE AMERICAN FOOD JOURNAL we publish in full the decision of the United States Supreme Court in the case of Grady and McDermott against the state of Wisconsin, involving the validity of the Wisconsin Syrup law as applied to interstate shipments. The decision declares against the Wisconsin law and sustains the contention that the Federal law operates in the case tried. The food product involved was Karo Corn Syrup, the labels on the packages of which complied with the Federal law, but not with that of Wisconsin.

As is well known, Wisconsin has a state food commissioner who is one of the most radical of the radicals, and at his instigation a law was enacted in Wisconsin with labeling provisions in direct conflict with those of the Federal Pure Food and Drugs Act. We do not propose to give a digest of the decision referred to here, as our readers will read it in full, but we wish to call special attention to that feature of it which defines the point beyond which a state cannot go in passing food laws.

The decision declares invalid that feature of the Wisconsin law which requires that the foods involved be sold under the state label only regardless of the fact that said foods are legally branded under the federal food law.

The unwisdom of a state enacting a food law more drastic in its provisions than are contained in the national enactment is indicated in this decision, and the necessity is now apparent for every state in the Union which has a state law not in conformity with the national law to so amend it as to make it identical. Failing to do this, the interests of such a state must necessarily suffer greatly.

Commissioner Emery of Wisconsin constitutes a striking illustration of how greatly an ultra-radical, impractical official may injure the people of his own state, when he assumes that his individual sense of right and justice is superior even to that of the Congress of the United States.

The federal pure food law as it now stands, we believe, if properly enforced, absolutely protects the public interests, and insures purity and honest labeling of food products. When any state tries, as Wisconsin has, at the instigation of Commissioner Emery, to make ultra-drastic labeling requirements, in undue excess of the very adequate federal law on the matter, great injury necessarily results to the people of the whole state.

This fact is amply indicated in the case just decided by our Supreme Court. It has cost Wisconsin state directly thousands of dollars to try this case through the various courts, and at the same time the business of the state has been handicapped and curtailed. Manufacturers of food products will not always go to the trouble and expense to relabel goods to conform to a state law, when they have fully complied with the federal requirements as to labeling.

As example of the methods which have been followed to escape the objectionable Wisconsin labeling requirements, it is noticed that the mail order house sales, not only of the particular kinds of products involved in the Grady and McDermott case, but of many other similar lines, since the commencement of this action, have been enormous. In other words, mail order houses of Chicago have been doing an enormous business with Wisconsin people which under a state food law patterned after the Federal statute would undoubtedly go through Wisconsin jobbers and retailers.

THE AMERICAN FOOD JOURNAL has continuously contended for uniform state and national food laws, believing this to be one of the cases in which the interests of both the public as a whole and the manufacturers are identical. In view of the present decision, it behooves every state in the Union which has food laws not patterned after the Federal Pure Food and Drugs Act to amend its statutes to conform therewith. In fact, this is not only advisable but necessary in some instances, since the Supreme Court has decided such provisions as the Wisconsin law contains invalid, and this decision would, of course, affect similarly the same kind of a law of any other state.

That no state should be so blind to its own interests as to permit a fanatical extremist of the school of Commissioner Emery of Wisconsin to draft its food laws on lines of extreme unreasonableness, and which the best interests of consumers in no way demand, this decision is conclusive evidence.

FIRST NATIONAL MARKETING CONFERENCE.

THE first National Conference on Marketing and Farm Credits held in Chicago, April 8, 9 and 10, was largely attended by delegates from all over the United States, while three foreign countries were represented.

The two subjects of co-operative selling associations for disposing of products of the farm and farm credit systems occupied the deliberations of the meeting to the practical exclusion of everything else.

Without doubt the producer of farm products is entitled to a larger proportion of the price which consumers pay for the same, but how to get their just proportion is the great question. Co-operative marketing if it can be practically carried out, it was the consensus of opinion of the delegates would provide the best way of attaining the desired end. The conference, however, offered no concrete recommendations as to how to proceed to organize such co-operative associations.

A resolution was adopted declaring it to be the opinion of the delegates that "the national government should establish a bureau or other effective agency for the study of the problems of marketing, and for the distribution of information as to the conditions and needs and rational methods of meeting those needs." It was also resolved "that the several state governments should, in similar manner, take up the study of this problem and the promotion of more economical and efficient systems and methods of marketing, and that the universities, agricultural colleges, newspapers, and the various organizations for promoting economic welfare, both in the city and country, should give this problem their immediate attention." It was further resolved that the "national and state governments, and other agencies mentioned above, should likewise give immediate consideration to the provision of adequate means to which farmers may secure loans, under favorable conditions."

It was the part of wisdom that this conference did not attempt to offer any definite scheme for achieving these much to be desired objects, for it will take a great deal of study and careful investigation to ascertain just what kind of a co-operative marketing system could hope to succeed. And a scheme of farm credits which would be adapted to the needs of the United States and prove financially sound in policy is at least an equally difficult problem.

Since this conference was held President Wilson has appointed Dr. Thomas N. Carver of Harvard University as head of the new office of market investigations in the United States Department of Agriculture, and without doubt the above questions will be thoroughly investigated. The $50,000 appropriation which Congress has made to carry on this work is however not considered at all adequate to needs in order to do it properly, and if anything is to come of it many times that amount will have to be made available.

In the matter of co-operative agencies the Conference went on record as favoring "organized co-operation, both of consumers and producers, under proper supervision, to promote efficient distribution, economical marketing and reduce expenses between producers and consumers."

In all discussion as to changing methods of marketing it is well to remember that while it may be possible to eliminate, to a considerable extent, the middlemen, it will not be possible to eliminate the service they perform. If produce is to go direct from producer to consumer without changing ownership in the trip, then both producer and consumer must be organized to perform the services which now are the work of the middlemen.

Without doubt the route which farm products now take before reaching consumers' hands can and must be shortened. Whether it will be possible ever to get along without any middlemen in this character of commerce is, in our opinion, to say the least, very doubtful. At any rate such an outcome would be the result of a slow evolution.

PLANS FOR MOBILE CONVENTION.

PLANS for the program and entertainment to be given at the Seventeenth annual convention of the American Food, Drug and Dairy Officials, in Mobile, Ala., which opens June 16, are published in this issue.

The Battle House has been chosen as headquarters for the delegates. Rates at that hostelry are from $1.50 to $3.00 and C. H. Billingsley, of the pure food bureau of Alabama, Montgomery, Ala., will reserve rooms for those who request him to do so, or delegates expecting to attend may make their reservations direct by writing the Battle House.

Other hotels on Mobile are The Sawten, rates $1.50 to $3.00; and the Bienville and St. Andrews at which rates will be $1.00 and up.

Governor O'Neal of Alabama will deliver the address of welcome for the state, Mayor Laz Schwarz for the city of Mobile, and Hon. Wm. Armbrecht for the Mobile Chamber of Commerce and Business League. This commercial organization has arranged to entertain the visitors with a trip to the oyster beds in the vicinity of Mobile, and will also provide other forms of entertainment.

The principal features of the program will be addresses by David Franklin Houston, Secretary of Agriculture, and Dr. Carl Alsberg, chief of the Bureau of Chemistry, who have been invited by the convention to outline their views on federal food drug and meat inspection.

Commissioner Wallis of Idaho, is scheduled for an address, while President Davies' annual message will review the progress made throughout the United States in the last year in dairy, drug and food inspection.

TEST FOR FROZEN ORANGES.

Advices from California state that a test has been discovered for distinguishing conclusively frozen oranges and lemons from the unfrozen fruit. The process involves four dips in an alcohol solution. The dipping is done about three days before shipping. The first solution contains 88 per cent alcohol, the second dip 80 per cent alcohol, the third dip 75 per cent alcohol, and the fourth and last dip 70 per cent. If the fruit can go through all four dips without floating it is pronounced sound. The frozen specimens float and are thrown away.

"THE GOOD OLD DAYS."

A CERTAIN class of people are fond of talking about "the good old days," but they are for the most part individuals without imagination and with a very poor memory. As a matter of fact, there never was a time in the history of the world when the days were as good as they are right now in this year of our Lord 1913. The most of us are inclined to pause and indulge in retrospection occasionally, and the vast majority of those who do are unutterably thankful that "the good old days" are only a memory, or, to the very young, but an account of times which were before their entrance into the world. Affairs have moved with such rapidity in the past quarter of a century that we can scarcely keep up with them, and our imagination is strained to conjure up a picture of what freakish thing we now ridicule or deride will become the commonplace in a very short period of time.

Discovery and invention have done no more for any class of people than for those who live upon our farms. One by one the tasks which made agricultural duties more than irksome and almost beyond endurance yield to the advance of modern invention, and the picture of the horny-handed farm toiler with lantern in one hand and milk pail in the other between three and four o'clock on a frosty morning is today merely a cartoon. It is in America no longer typical.

One of the hardest seasons of the year, if not indeed the very hardest, on the farm is the time of harvest. Grain crops ripen practically simultaneously, there being but a very short period between the right time for cutting and an over-ripe condition which means field shelling and consequent loss of product. As a result, the whole work of garnering must be accomplished with a grand rush of labor literally from sun to sun.

The cry for harvest hands in the great wheat growing sections is perennially insistent. From every part of these sections comes a Macedonian call. The farmer's wife and all his family share in the strain, and an immense sigh of relief escapes when harvesting is finally over.

The evolution of harvesting and threshing, beginning with the time of scythe cutting and flail threshing to present days of improved machinery methods, is an intensely interesting story of romantic flavor. It would seem that all had been done that might be hoped for in the way of improved machinery for handling grain crops, but it appears that the last word in this respect is just being said, and in the *Technical World Magazine* for March is described a recent invention which will thresh grain in the field just as it stands, without cutting it down. The inventor is Mr. Curtis C. Baldwin, of Kansas, and his machine has been used in three successive harvests. Last fall it threshed from twenty-five to thirty acres of grain in a ten-hour day, and its inventor contends that by this method the cost of harvest will be reduced seven times, or to about 2 cents per bushel. The total estimated saving such a machine would save the farmers of this country is placed at approximately $200,000,000 a year. This would go a long way toward reducing the price of bread, as it is impossible to conceive that even under the present exorbitant system of distribution the whole of the saving could be absorbed. Farmers and consumers would certainly receive a portion of the financial benefit which would accrue by the improvement.

Thus does invention and discovery carry us on at a rapid pace, and to the coming generation what we consider our present high achievements will be displaced by other still more remarkable things, and our time will in turn become "the good old days," to which only the unprogressive and sentimental will care to hark back.

INCREASING THE CONSUMPTION OF BREAD.

WE have Sunny Jim, the Gold Dust Twins, and the Wool Soap babies, as well as other members of a numerous family of advertisement personalities. One of the latest additions to the list is John Dough, a full grown man, by the way, who has been sent out upon his career to promote bread eating.

It is a tribute to the efficacy of advertising to note what inroads have been made by some other classes of cereal products upon the consumption of bread. Yet even admitting that to be so, it is a mighty hard thing to improve on "Good oven-baked bread," when we come right down to essentials, and the fact is attested when we see that even with all the millions of dollars' worth of publicity that has been brought to bear upon the subject, bread which has been comparatively little advertised is still the great cereal staple of the tables of the civilized world, and the practically universal staff of life."

A good many people probably do not stop to think of bread as a cereal, yet that is just what it is. Wheat bread, corn bread, rye bread, and a score of other kinds all are pure cereal products. When the cereal food propaganda in the way of advertising breakfast foods first started the effect was such upon the consumption of flour products that the flour manufacturers found it necessary to meet the situation with equally effective advertising campaigns. They have done good work, and the healthy competition among manufacturers of the different food products has helped to maintain a desirable balance in consumption of various cereal foods. Bread advertising with the view of increasing bread consumption is a new phase of the game, and a perfectly legitimate one. We are only surprised that the bread interests did not take up and push the matter long ago. In this day and age of the commercial world while a product may maintain a certain position, it cannot have vigorous life if it is not adequately advertised. It is sometimes claimed that even an article of no value can be sold in large quantities if it is given proper publicity. This, however, we think is a false premise. An advertised article may gain momentary popularity through publicity alone, but to hold its place it must possess inherent merit.

But it is equally true that an article of superior merit will not receive its just distribution unless it meets advertised competition with the same weapon of publicity.

Condensed milk shipments from the United States revived in the fiscal year 1912, being in value $1,651,879, against $936,105 in 1911, whereas in 1908 exports were valued at $2,455,186.

It is estimated that the sale of canned foods constitutes about one-fourth of a retailer's business.

NEW SOLICITOR FOR DEPARTMENT OF AGRICULTURE.

THE office of solicitor for the United States Department of Agriculture, made vacant by the resignation of Mr. McCabe March 4, has now been filled by the appointment of Mr. Francis G. Caffey to the position. Mr. Caffey never previously held public office and will gain his first experience in such capacity through his present appointment.

A brief biography of Mr. Caffey reveals that he is a native of Alabama, in which state he was born at



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FRANCIS E. CAFFEY,
Solicitor U. S. Dept. of Agriculture.

Gordonville, Lowndes county, October 28, 1868, the son of Dr. Hugh William and Alabama (Gordon) Caffey. He attended the schools of his native county and later pursued his studies at Howard College located at Marion, Alabama, graduating in 1887. Subsequently he entered Harvard College, from which he graduated in 1891 with the degree of A. B., and a year later received his Masters degree.

Mr. Caffey took a two years' course in the Harvard Law School, 1892-1894; in 1891-1892, was assistant to Prof. Edward Channing in American history, and from 1892-1894 was assistant to Prof. George P. Baker in forensics at Harvard.

He was admitted to the bar in Alabama in 1894 and practiced law continuously at Montgomery, Alabama, for eight years. From 1894 to 1896 he was in employment of, and from 1896 to 1898 was a member of, the firm of Tompkins & Troy at Montgomery. Upon the death of Col. Henry C. Tompkins, the senior member of that firm, in 1898, the firm became Watts, Troy & Caffey and so continued until 1902. The firm of which Tompkins & Troy and Watts, Troy & Caffey were the successors was founded in 1840 by Thomas Hill Watts, one of the greatest lawyers ever produced in Alabama, and had a continued existence until 1902.

In 1902 Mr. Caffey removed from Montgomery to New York City and there practiced for eleven years, first in partnership with John C. Breckenridge and then in partnership with Mr. Breckenridge and Samuel B. Clarke, under the firm name of Clarke, Breckinridge & Caffey.

During the Spanish-American war he was lieutenant-colonel of the Third Alabama Volunteer Infantry.

AMERICAN CHEMICAL SOCIETY MEETING.

THE AMERICAN CHEMICAL SOCIETY held its semi-annual meeting at Milwaukee, Wis., March 24 to 28. The delegates in attendance numbered about four hundred, and included some of the most noted chemists of the country. Dr. Carl L. Alsberg, chief of the United States Bureau of Chemistry, was among those whose names appeared on the program, as well as several other members of the official staff of the United States Department of Agriculture. The discussions of this society cover a wide range of subjects, and while many popular questions are considered, the program always contains in addition numerous papers of deep scientific interet.

MEETING AT LEXINGTON NOT HELD.

THE meeting of food officials of Kentucky and contiguous states, which was announced would be held on April 22-24, at Lexington, Ky., was again postponed. The reason for this action was the inability of the greater number of the commissioners to be present at that time because of work in their state legislatures, and other reasons, and also on account of the shortness of time between the date which had been set for the Lexington meeting and that of the national convention, which is set for June 16.

MR. BIGELOW RESIGNS.

MR. W. E. Bigelow, who recently was appointed a member of the Board of Food and Drug Inspection, and was for many years connected with the Bureau of Chemistry, has resigned his office. It is announced that he will take charge of the laboratory which the National Canners' Association is to establish in Washington, D. C.

The 30th annual convention of the National Confectioners' Association will be in Cleveland, Ohio, June 17-18-19, 1913.

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

IMPORTANCE OF A BALANCED RATION.

FOOD values, nutritive qualities, caloric contents are all terms familiar to the ordinary reader, so much has been said concerning them during the past few years. Indeed some labeling enthusiast has suggested that it would be a good idea to compel manufacturers to label food packages with the calory content instead of chemical constituents of a product. This illustrates something of the evolution that has been going on in reference to common information concerning foods and their nutritive value. A generation ago, yes half a generation ago, the kind of language now in common use would have been altogether too technical for anyone but the chemist or dietetic student while now many scientific words are in the mouths of the ordinary individual.

The balanced ration for human beings agitation is of more or less recent date, although the term is familiar to all poultry and stock raisers. The government has spent a great deal of time and money, and engaged the best experts obtainable on nutrition investigations to assist farmers to intelligently feed the dumb animals which they wish to work or prepare for the slaughter, but human animals have had comparatively little attention paid to them in this respect.

A balanced ration for human beings means exactly what the same term means in reference to dumb animal feeding. A ration to be balanced must contain the right and necessary proportions of the various classes of foods to nourish every part of the body in the degree it requires. For this reason a balanced ration for the outdoor worker, for instance, differs from the balanced ration for those employed at indoor sedentary occupations, just as a balanced ration for a dairy cow is of different character, than the balanced ration for the beef that is being prepared for market.

More knowledge as to what constitutes a balanced ration for the family would go a long way toward insuring better meals, of correct nutritive and body-building proportions and reducing the cost of those meals, for very often it is the case that the most expensive menus are the least nutritious. Likewise, it might easily happen that a family which is fond of sweets and desserts could so arrange the bill of fare as to include a larger number of foods in that class without sacrificing the food value of the meal. All things being equal it is always best to serve foods which the family find of greatest relish, rather than to try to compel one to eat something which the palate does not enjoy simply because as the parent may say to the child, "It is good for you." Most of us are like little Johnnie, who asked his mother why it was that all of the things that were good for him he didn't like the taste of.

We do not advocate the undue pampering of family appetites, nor serving in large quantities injurious foods because the individuals of one's household may have acquired a taste for them. It is necessary, however, to cater to a family's likes and dislikes, and it can be done intelligently, and in the majority of cases without friction or dissatisfaction.

At last year's annual meeting of the Household Science Department of the Illinois Farmers' Institute, Mrs. E. F. Ford of Greenfield, Ill., read a paper on this subject of balanced rations, from which we quote the following:

"It takes ten elements to grow a perfect plant; omit one of these and the plant starves. It takes twelve elements to grow and sustain a perfect body; if one of these is lacking, parts of the body suffer starvation, weakening their ability to perform certain functions. Nature has wisely supplied these twelve elements, combined as best suited to man's use in the five classes of food, namely: The proteids, the carbohydrates, the fats, mineral matter or ash, and water. It is necessary to know something of these classes of food, the elements found in them, and the special work they perform in the body, before we can select a balanced ration.

"The proteids furnish building material for the living tissues of the body, and they contain five elements of food, nitrogen, hydrogen, oxygen, carbon, and sulphur. The white of egg, lean of meat, curd of milk and gluten of wheat are proteids. The carbohydrates and fats furnish the heat and energy of the body: they contain oxygen and hydrogen, and are rich in carbon which has the same use in the body as in common fuel. All sugars and starches are carbohydrates. There are two kinds of fats, animal, as butter and lard, and vegetable, as olive oil. Vegetable fat is more wholesome than animal fat for many reasons. Mineral matter is found in all vegetables, fruits and some water. Vegetables are rich in the minerals for which the body so often starves. Phosphorus, calcium or lime, and iron are all necessary for the perfect growth of a child. Whole wheat flour contains these elements, yet how few mothers raise their children on whole wheat bread. How can a child have good bones, teeth, etc., unless he be given food that will grow them.

"Eggs are rich in phosphorus and iron, but milk is the food richest in lime, hence they are ideal foods for children. Common salt is composed of sodium and chloride, magnesium and potassium are found in vegetables and some fruits. If the body is starved for mineral matter it will sometimes steal lime, iron and other elements from the bones, leaving them weak, easily broken and unable to support the body. As the red corpuscles of the blood are formed in the marrow of the bones, such robbing them of needed elements also makes impoverished blood.

"Most of us use too much proteid in our food; the best authority on dietetics states that only one-tenth of the diet should be proteids. If more starch or fat is consumed than the body needs, it is stored up in the form of fat for future use; but if too much proteid is consumed, the body tries to get rid of it at once. This overworks the kidneys, liver and other organs, causing many serious troubles. Less meat and more vegetables would be a good motto for our kitchen walls..

"More than one-half of the body is water; all the cells and tissues with the exception of the outer skin are surrounded by it. Large quantities should be consumed daily; at least two quarts by an adult. It assists greatly in digestion and assimilation, and helps the body maintain an even temperature. Plenty of water used freely inside and outside of the body will do more to promote health and prolong life than pills and powders. Most all food contains water, some fruits as much as 95 per cent.

"Bulky foods are very important and should not be neglected, as they stimulate the activities of the digestive tract, and assist in the process of getting rid of waste matter.Vegetables, cereals, and whole wheat flour are examples of bulky food. It is no easy task to select the proper diet for the members of our household. There are so many things to consider, such as the climate and season of the year, the age, the occupation, and even individuality. But we can all place upon our tables good, wholesome, real food, combined to suit the needs of those who depend upon it for life, health and strength."

SAYS EAT GOAT MEAT.

The head of one of the large meat packing houses has come out with the advice that we should eat goat meat to help out the supply of meat foods.

"There is no sound objection to goat as food," he says; "it is a ridiculous prejudice. The idea of eating goat is abhorrent to people for no reason whatsoever.

"Of course, I am not speaking now of the poor harassed billygoats that we see children driving around hitched to carts and abused by every one. They are fed on tin cans and old clothes, and are not fit for food. A goat that is to be slaughtered should be fed just as well as a steer. It is a mistake to think that a goat can thrive on scrap iron and broken glass. He may manage to live on the bark of a tree, but he will not make a good roast afterward.

"It takes a keen butcher to tell the difference between a goat and a sheep when the two have been slaughtered and dressed. And some shrewd butchers know this. It is perhaps the reason why so many stray goats find their way into the stockyards. Eventually these same goats find their way to the dinner table marked 'lamb' or 'mutton.'

"If goat meat was established on the markets, I think it would sell for about 11 cents for yearlings when lamb is selling at 14 cents. That would be a top price for goat. In fact, the prices of both might come down considerably, because any increase we would have in the food supply would tend to bring about a general reduction of prices."

Salt and Its Manufacture

TO write the history of salt would, indeed, be a monumental task, for such a record would almost involve a history of the world. It is quite conceivable that the commercial history of the past might have had its inception in the traffic in this commodity, for we have learned many interesting things in regard to the high value set upon salt in ages gone. Time was when salt was used as a representative of values, and was the chief basis of barter.

The gathering of salt we are told by one writer is one of the oldest of industries. Ancient literature shows that salt has long been highly prized, being used as a votive and sacrificial offering in religious ceremonies. The possession of natural sources of salt has even been made the object of war. It is claimed that the first roads were built to accommodate the traffic in salt. Venice is said to have owed her commercial supremacy in part to her control of the salt trade of southern Europe, and Liverpool has benefited largely by her considerable control of the trade in modern times. In many countries now the salt industry is a government monopoly, and an important source of revenue.

Today salt production is conducted on such a large scale, and is common to so many sections of the world that its money value has been reduced to a point that places this commodity as among the cheapest of those necessary to life. Yet the salt industry in this country is a very large and important one, representing many millions of dollars in value, and that it is also a profitable one is but a just tribute to the genius of those engaged in it and their success in improving methods to reduce mining and refining processes to the most economical basis possible, while at the same time improving the quality of output.

Although it is true that the maximum of low value is expressed in the common phrase, "Not worth his salt," no one need attempt to belittle the true value of salt to the human family, and in fact to practically all animal life, for while it shares with water and air the lack of conscious appreciation of it, salt is almost, if not quite, as indispensable to preservation of life and health.

Salt may be said to be our one great indispensable, available condiment, which has back of it an honorable history unsullied by records of adulteration or impurity. So far as have been able to discover but one case has ever been instituted against salt by our Federal Food and Drugs authorities, and that was a case not against the salt but against the label on the package.

So the American housewife need do no worrying about the purity of the salt she uses. As a matter of fact there is no inducement for manufacturers to adulterate salt, for it would be very difficult for them to discover any ingredient so cheap as their own pure product; and it might be well to say right here that the effort to reduce cost of ingredients is at the root of the food adulteration evil in most cases. Also the modern salt refining apparatus is so constructed as to make it more economically operated on pure brine rather than that containing other chemical ingredients.

There are many people who seem to labor under the impression that salt, as it is used in food and upon the table, is a free gift of nature to man, forgetting that it is really a manufactured product. Most salt in its crude state is very different from the refined article we use so freely as a condiment. It is because of this too prevalent and mistaken impression that we are briefly giving the method of mining and refining this product.



SEA SALT BY THE SOLAR PROCESS—EXPOSED TO WIND AND DIRT.

Salt is secured either through evaporation of brine from salt deposits within the earth, or sea water. The solar evaporation method of securing salt is practiced in this country to a very limited extent in the Great Salt Lake section of Utah, and on the Pacific Coast in California. The salt water is walled off into reservoirs, and as it evaporates is pumped from one reservoir to another, until finally in the last receptacle the salt crystallizes and can be gathered into great piles for removal to the refining or packing factory. Syracuse, New York, is the principal solar evaporating center in this country, although the original source of the salt water is brine wells, instead of sea water.

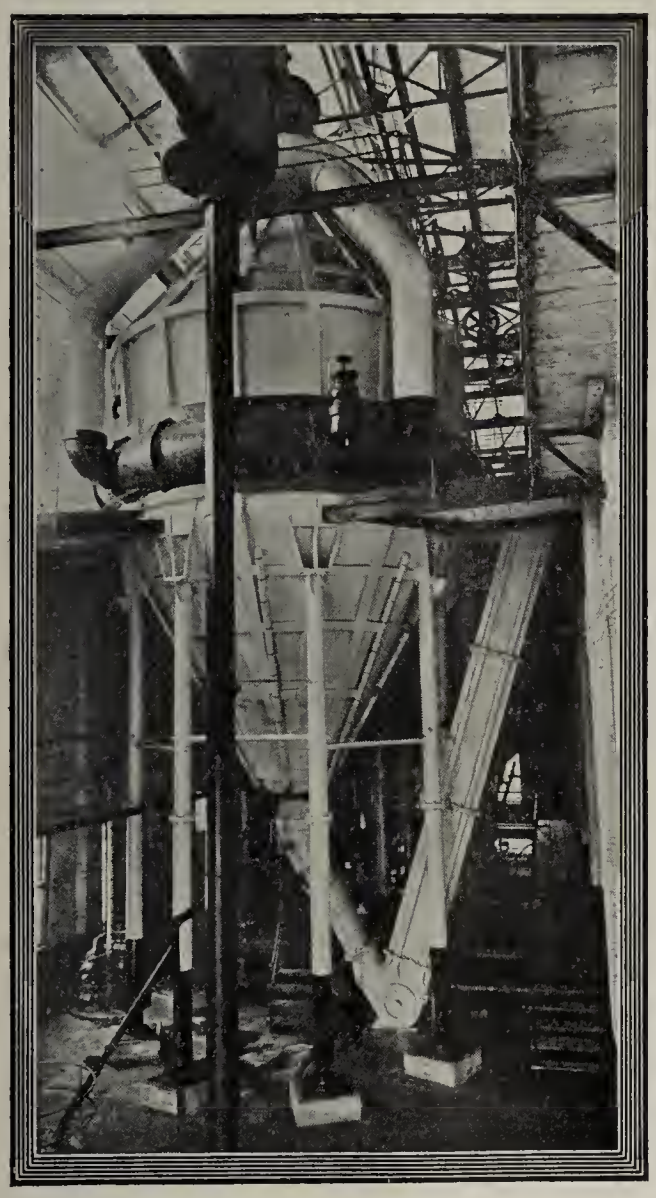
The solar evaporation process has been almost entirely abandoned, except in the localities mentioned above, and its place taken by the more modern and sanitary methods. The salt produced by the solar process naturally contains a great deal of dust and dirt blown in on the open salt "ponds" by the winds.

Rock salt is, however, the basis of the far larger proportion of salt production in the United States. These rock veins are located far below the surface of the earth, and are found in various localities in this country, chiefly in New York, Louisiana, Ohio, Michigan, Kansas and Texas. It would seem from the geological formation that these deposits are on the shores of some enormous prehistoric sea and were formed in the same way as the salt crust around the salt lakes in our own western states.

The first method of securing salt from these rock beds is to sink a shaft, an operation similar to mining coal or other minerals, and the product when brought to the surface is crushed and screened to make the various grades of rock salt, ranging from fine to the lump rock, which is used for stock purposes.

The other process by which table, meat and the fine stock salts are produced is as follows: Wells several inches in diameter and varying in depth according to locality (those in some places being almost 2,500 feet deep) are bored down to the vein of salt rock. A pipe casing is driven to the top of the salt bed and inside this casing is a smaller tube which is extended well into the salt deposit. Fresh water is forced down the casing and as it comes in contact with the salt deposit dissolves and makes a brine. This brine is then brought to the surface through the small tubing. The process of manufacture of salt from the brine then begins in the salt works.

Very few if any salt deposits are chemically pure salt. Other foreign constituents are contained in them and these must be eliminated when the salt is to be used as a condiment on our tables or for preservative for meats or other



Courtesy Morton Salt Co., Chicago.
THE MORE MODERN AND SANITARY VACUUM PAN METHOD.

food products. In order to remove the impurities the brine is put through settlers until finally it responds to a high test.

For evaporation in the vacuum pan process the brine is let into an evaporator some sixty or seventy feet high, as shown in the accompanying illustration, and is then heated by steam which circulates around the brine filled tubes. Evaporation by this system is aided by reduction of the atmospheric pressure by means of condensers and air pumps. The salt drops into the lower leg of the pan from whence it is taken by a conveyor. This conveyor is shown in the illustration as the straight white box leading up from the ground to the right. From these conveyors the salt goes into bins where it is thoroughly drained of excess moisture, and then it is piled on the warehouse floor to be thoroughly air-dried and seasoned. The resultant product is what is known as common salt. In some states the law regulates the length of time that salt must be seasoned before being used.

Table salt, in which our readers are chiefly interested, is made from the common salt by running it through dryers, so as to remove the last trace of moisture. This salt is conveyed while warm from the dryers to screens and the fine meshes clear the product of any lumps and possible extraneous matter, and the salt comes from the screens separated into the different grades, which are determined by the size of the grains. The drying, screening and packing is a continuous process, and allows no chance for the product to come in contact with anything which could possibly contaminate it.

We all know how vexatious it is to have the table salt harden in the salt cellars, or become so moist that it will not shake out. The head of the house has often been provoked to inaudible—if not audible—profanity under such circumstances. The overcoming of this difficulty is one of the achievements of our best salt manufacturers within very recent date. The table salt which is packed in the "free-running" packages is mixed with a non-hardening harmless compound. Pure salt hardens very readily and a small quantity (less than 1 per cent) of calcium phosphate is needed to keep it from hardening after the package is opened. Much also depends on the package used. One of the most successful moisture-resisting packages is a round carton equipped with a small aluminum device which, when open, forms a pouring spout, while when closed the spout becomes an efficient stopper for the opening in the top of the carton. The carton itself is made of three-ply cardboard with an asphalt layer between each, so that no dampness can penetrate. In fact, this carton was given a government test and was submerged in water for some time without moisture penetrating to the contents.

The largest table salt plants in the Central states are located on the St. Clair river near Detroit, Michigan. There are made the most familiar brands of table salt in both the granular and flaky grain varieties.

Salt itself is one of the best antiseptics known and when prepared and handled by modern methods under intelligent direction it may safely be said to be the purest of all commodities the housewife uses, as well as the cheapest.

THE RIGHT WAY TO OPEN CANS.

One of the most trying and vexatious operations which most housewives are daily obliged to perform is opening a sealed tin of food. Any suggestions as to how best to accomplish the desired result with a minimum of trouble is always welcome. Mr. C. H. Bentley, an officer of the California Fruit Canners' Association, who ought to know just what he is talking about, contributes to the *California Fruit Grower,* San Francisco, the following as the "Best Way to Open Cans." We reprint the directions for the benefit of our readers:

"Did you ever try to open a can of food? Did you punch a hole in the top of the can, wiggle the can opener around, leaving a jagged edge like a buzzsaw? Did you cut your hand, and lose your temper over the poor, inoffensive can? If so, you will be interested to know once and for all that there is no need for all this extra effort and annoyance. Just remove the label from the side of the can until you can see the seam, which was made in forming the body of the can. Lay the can on its side and puncture the can next to the seam with the point of the can opener, and next to the top of the can. Then set the can in an upright position, insert the can opener in the hole already made on the side of the can—working away from the seam until you have cut around the can. You will then be able to turn back the entire top (or bottom). If the can be held firmly, any ordinary can opener will answer. By this method there is no risk of cutting the hand, and you will have a smooth edge over which the entire contents will pass without being cut or broken.

MINNESOTA CANNED GOODS TO BE STATE INSPECTED.

The Minnesota legislature has enacted a new law whereby provision is made for state inspection of canneries in that commonwealth, and packers may place upon their goods the distinctive state label, to be designated as "Minnesota Brand." The new law places the supervision of canneries and canned goods products in the hands of the State Dairy and Food Department, of which Joel G. Winkjer is head.

Commissioner Winkjer states that at the time the canneries are in operation, especially at the season for canning corn, which is the chief Minnesota product canned, he plans to put practically all his inspectors into the twenty or more canneries of the state, to check them up on the quality of the material going in and the methods of putting up. The object is to bring about an exceptionally high standard so that the Minnesota brand will command a fancy price in the outside market.

When Cherries Are Ripe

THE advent of cherries on the market marks the real beginning of the tree fruit season. However perfect the art of preserving may become fresh fruits direct from bush or tree will always have first call with the epicurean. Yet because the season for the fresh article is so short, and the abundance at time of ripening of a given variety is so great, it is impossible to use all that is available which calls for the practice of canning and preserving.

The cherry is a fruit common to all parts of the country and most people have opportunity to enjoy the fruit in its fresh state at least for a short season, yet for variety's sake the fruit is also cooked and there are a host of ways in which cherries may be served, whether it be a breakfast, luncheon or dinner dish that is desired.

An ideal breakfast dish is called acidified cherries. Pit the cherries in whatever quantity is necessary to serve your family, and place the fruit in layers in a dish, sprinkling each layer generously with sugar and adding a little lemon juice. Another breakfast dish is cherry toast. To prepare this cook one pint of seeded cherries with a cupful of sugar until the fruit is tender. Butter slices of toast and pour the cherries over, adding a spoonful of whipped cream as a top to the dish.

To prepare sugared cherries, make a syrup of sugar and water, take each cherry by its stem, dip into the syrup, shake slightly to remove surplus syrup, then dip the cherry in powdered sugar, rolling it over and over until completely covered. Such cherries make a dainty garnish for jellied desserts.

For cherry tarts make a paste of one pint of pitted cherries, one cupful of sugar and half a cupful of water. Fill tart shells nearly full with the mixture, and serve with cream.

A number of other methods of preparing cherry dishes are given below:



CHERRY SALAD.

Remove the stones from a pint of cherries, saving all the juice. Fill the cavities with chopped mixed nuts and celery. Chill and serve on crisp lettuce leaves, with a sweet dressing made of the strained juice, one tablespoonful of lemon juice, and sufficient sugar to form a syrup after being boiled and strained.

CHERRY PUNCH.

Put one pound of sugar and a cupful of water in a saucepan over the fire and stir until the sugar is dissolved; add the grated rind of an orange and boil for five minutes. Take from the fire, strain, add one pint of cherry juice, the juice of two oranges and one lemon; cool and freeze. Serve in glasses placing three whole cherries on top of each glass.

SALTED CHERRIES.

Place rather underripe cherries in brine composed of four ounces salt to one gallon water. Let stand for two days, then add two more ounces salt. Let stand three weeks, adding an extra ounce of salt each week. Then put up in cans, cold, and seal. Rinse in fresh water before serving like olives.

CHERRY BROWN BETTY.

Put a layer of finely chopped, well-sweetened cherries in the bottom of a baking dish; cover with fine bread-crumbs dotted thickly with bits of butter. Put in more cherries, more sugar, etc., continuing until the dish is full. Have the top layer of buttered crumbs. Cover and bake for an hour, then remove the cover and brown. Serve with hard sauce flavored with nutmeg.

CHERRY CAKES.

Beat to a cream three eggs, three cupfuls of sugar and one cupful of butter and add a cupful of milk. Sift three cupfuls of flour in another dish and mix thoroughly through it three heaping teaspoonfuls of baking powder. Stir this flour gradually through the mixture of eggs, butter, milk and sugar, put the mixture in patty pans, stand on a baking sheet and bake in a rather quick oven. Cover the tops of the cakes with white icing and lay a stem of cherries on each. These are dainty and attractive enough to serve at a formal luncheon or afternoon tea.

CHERRY SHORTCAKE.

Sift together two cupfuls of flour, a heaping teaspoonful of baking powder, two tablespoonfuls of sugar and a teaspoonful of salt. Rub in half a cupful of butter and mix with a well beaten egg added to a half cupful of milk. Make the dough soft, roll out about an inch thick and bake for about twenty-five minutes. When done, split it carefully, butter well, and cover with half of the cherries, from which, of course, the stones have been removed; sprinkle with sugar. Butter the top layer, cover the cherries, sprinkle these, too, with powdered sugar, and serve with whipped cream. The cherries for this should be very ripe.

CHERRY COCKTAIL.

Select large lemons, and from the pointed end of each remove a slice to form a lid for a cup. With a sharp knife remove all the juice and pulp from the inside of each lemon. Wash the cups and lids and, when ready to serve, fill with the following mixture: Stone and bruise ripe cherries, chop them fine and add a tablespoonful of lemon juice to each cupful of fruit; sweeten to taste and strain thoroughly. Serve in the lemon cups with straws, on a circle of cress.

CHERRY FRITTERS.

Make a batter of a cupful and a half of flour, two teaspoonfuls of baking powder, one-third teaspoonful of salt, one-half cupful of milk—a little more may be added, if necessary—one egg, and beat till smooth. At the last add a cupful and a half of pitted cherries that have been covered with sugar for thirty minutes and afterward drained free of the syrup. Drop, by spoonfuls, into hot fat and fry a golden brown. Serve with a sauce made of the syrup of the cherries.

There are a number of ways of pickling cherries for future use, among which the following are offered as very good:

CHERRY PICKLES NO. 1.

Make a brine strong enough to bear up an egg. To this add fresh sound cherries with one inch of stalk left on. Keep covered twenty-four hours. Drain, scald the brine and pour over pickles. Let stand over night. Drain again. Put in bottles and cover with vinegar in which one ounce mustard seed has been boiled.

CHERRY PICKLES NO. 2.

Boil one quart of vinegar with two ounces salt and half an ounce mustard seed. Put the cherries in cans and pour on the hot vinegar. Next day drain, boil again and cover when quite cold.

CHERRY PICKLES NO. 3.

Let the cherries lie in strong salt and water over night. Draw off the liquid. Add oil and vinegar in the proportion of one cup oil to three or four cups vinegar and one tablespoon mustard seed. Seal in the usual way and store in a dark, cool place. Use after six months.

NEED OF STANDARDIZED PARCEL POST PACKAGE FOR FOODS.

Milwaukee, April 25.—Although the parcels post has been in operation but a short time, Milwaukee's health department is already engaged in a serious study of sanitary food shipment, as relating to the newly inaugurated branch of the postal service.

It has already been determined that the pure food postal transportation question is sufficiently important to be taken up more studiously by the federal authorities. The prediction is made that in time congressional action may be necessary to cope with the new situation which is apparent since the adoption of the parcels post.

After careful experimenting and observation, Dr. F. A. Kraft, health commissioner of Milwaukee, suggests the necessity for immediate consideration of the following subjects:

Standard packages for the shipment of foods.
Material for such packages to be specially prepared.
Foods, subject to fermentation, to be barred.
More precaution in shipments of fluids.
Special trained men to handle shipment of fluids.
Educational literature to shipping public.

"There is no evading the point that the post office department will soon be compelled to make special rulings to cover shipment of foods," says Dr. Kraft. "It is a question that will soon be confronting the government with conspicuous emphasis and federal action will be necessary to protect the health of the public.



DR. F. A. KRAFT,
Health Commissioner of Milwaukee, Wis.

"Perhaps the most important innovation, and I have given the subject much time and thought, is that of standardized packages. Upon inquiry one will learn that old shoe boxes, glove packages and other receptacles are used, all of which through constant handling before shipment, makes the circulation of germs an easy matter. What is needed most is a standard package. The material for this package should be designated by the post office department and should contain proper disease safeguards. Another point to be insisted on at once is the elimination of certain food products which are subject to fermentation. These foods should be entirely barred from the parcel post division. It is vitally important that the post office department take cognizance of this fact at once, since it is only a question of time when physicians will insist on an improved method.

"In the shipment of fluids, great precaution should be exercised. In my opinion, they should be handled by special men trained for that kind of work. This is another branch of the parcel post that will be given attention, and within the very near future, too.

"The most desirable manner to successfully handle the parcel post food shipment question would be the issuing of educational literature on this subject. Such printed matter should be kept on hand at all parcel post stations, and ought to be mailed to food producers who desire to use the parcel post as their medium for transportation of their product.

"The matter of publicity is necessary to instruct the people in regard to the parcel post. Our food journals are pointing out the good and bad, and in this way conditions are gradually improving, but as I said before, it will require special rulings by the post office department to bring about improvement in the conduct of the service.

"Furthermore, valuable details pertaining to this subject will undoubtedly develop by practical experience. Valuable lessons are being taught and we ought to be soon able to remedy and profit by them. No doubt improvements will be made by the department from time to time. These improvements will be necessary, for our health commissions will insist on them.

"It is a fact that the matter of pure food postal transportation is sufficiently important to be taken up more studiously and at once by the federal authorities."

VETOES BILL TO ABOLISH COMMON DRINKING CUP.

Governor Foss of Massachusetts has vetoed a bill prohibiting the use of common drinking cups in all industrial establishments where more than twenty-five people are employed. Governor Foss took the stand that the State Board of Health has authority to forbid the use of common cups in public places, and he thought that the public health was sufficiently safeguarded. He believed that to deprive persons of water because of the absence of bubble fountains would be a more serious consideration than the danger of infection.

WATCH YOUR MAPLE PRODUCTS LABELS.

James W. Helme, Michigan State Dairy and Food Commissioner, has issued from his office a bulletin on maple sugar and its adulterants. The bulletin advises buyers and consumers of maple sugar or syrup to take due precaution to read the labels of the containers of these products and thus inform themselves as to whether or not they are getting the pure article. The laws of Michigan are very strict concerning the labeling of maple sugar and maple syrup, and it is made a criminal offense to label any syrup or sugar as pure maple unless it is made exclusively from the sap of maple trees.

This warning is a timely one, as the new crop of maple sugar is now coming onto the markets. It is necessary for consumers to watch for "jokers" on the labels and be careful to read correctly cleverly arranged labels which, while complying with the letter of the law, are yet designed to mislead the consumer.

KANSAS ADOPTS NEW MINCE-MEAT AND CATCHUP STANDARDS.

S. J. Crumbine, Secretary of the Kansas State Board of Health, reports that at a regular meeting of the board, held March 28, 1913, at Topeka, Kansas, the following standards on mince-meat and catsup, upon vote, were unanimously adopted, superseding former standards:

MINCE-MEAT.

Mince-meat is a mixture of cooked, comminuted meat, with chopped suet, apples and other fruit, salt and spices, with sugar, sirup or molasses, with or without vinegar, fresh, concentrated or fermented fruit juices or spirituous liquors. *The meat present is in sufficient quantity so that the total nitrogen of the mince-meat is not less than 0.50 per cent.*

Condensed mince-meat, when mixed with liquid as directed on the label, conforms in all respects to this standard except that not more than two (2) per cent of flour may be used as a binder. If glucose be used in any kind of mince-meat, its presence must be declared on the label, using type not smaller than eight-point capitals.

CATCHUP.

Catchup (ketchup, catsup) is the clean, sound product made from the properly prepared, clean, sound, fresh, ripe, whole tomatoes, with spices and with or without sugar or vinegar. *It contains not more than 25 yeasts and spores per 1/60 cubic millimeter, and not more than twenty-five million (25,000,000) bacteria per cubic centimeter, and less than twenty-five (25) per cent of the microscopic fields show moulds.* Mushroom catchup, walnut catchup, and other catchups, are catchups made of material as above described, and conform in name to the substance used in their preparation.

Upon motion, regulation 15, paragraph "i," subdivision 3, was amended to read as follows:

"Each package of vinegar, wholesale or retail, as delivered to the purchaser, shall bear a label stating the source, or the kind of vinegar contained therein."

Grocery Evolution—Vogue of Package Goods

By Edith Townsend Kaufmann.

THERE is a song that runs, "I sigh in vain to live again in the days of old." While the name of the composer is uncertain, one thing is positive, the song was never written by a modern housekeeper. Comparison between the grocery store of forty years ago and the grocery store of today is the most convincing proof of progress along those lines that make for cleanliness and better living, in the conduct of the cuisine of the average household. Small, dark, and congested were the quarters in those "good old days." A swinging sign would read "My will is good, my price is just, I'll use you well, but cannot trust." Or another effusion along lines of "no trust" would declare "Poor Trust is dead, bad pay killed him." This would be accompanied by the haunting picture of a dog with his feet turned protestingly upward in *rigor mortis*.

Outside of these attempts at poetry and art, there was nothing but the most sordid conditions existing in the grocery stores of long ago. The tempting window displays of canned goods, fruit in jars and special structures built from boxes of cereals or wonderful jars of fruits were never seen. The plate glass show window was unknown. There were small dirty panes of glass and barred shutters taken down at six and put up at nine. Almost everything came in barrels, and the grocer and his one, usually Dutch, boy assistant would scoop out the loose sugar, rice, tea, coffee, etc., carrying as much accumulated dirt as the commodity itself, all going to make up the weight, on counter scales, which were rarely cleaned, and wore a crusty combination of saccharine, farinaceous, and fatty deposits. Smoked fish in open boxes added its flavor to the combination of cocoa shells, cheese and kerosene. As soap did not come in paper packages, it was cut off from long bars with a knife which later was quite as apt to be used for the cheese or butter, which was exposed on the counter, the only protection being a sort of wire mouse trap, with meshes so wide that dust and dirt filtered through, thus making a top layer that had to be scraped off before the customer could be served.



THE CLEAN AND WHOLESOME GROCERY OF TODAY.
Everything is germ proof, appetizing, and properly covered in boxes, cans and cases. Broad, clean aisles add to the customer's comfort.

Fancy in these days having to buy white sand and soft soap for scrubbing floors. Imagine buying food, such as bacon, hanging exposed on a hook where flies were so thick, both alive and dead, that small boys, waiting to be served, revelled in the delights of sweeping off handfuls of them from the greasy counters. Compare that condition with the handsome, well ventilated, light and attractive grocery stores of today, with tempting shelves of canned goods, which include not only the staples, such as pickles and preserves, that are no longer novelties, but also the most delicious and unusual adjuncts to the meal of the epicure. Whether truffles or turtle meat, or caviare or cheese, the taste can be accommodated, with the highest standards of purity and cleanliness enforced by law.

The old custom was to permit a customer to test butter and cheese by giving her a dab on a knife. This she licked off, in this way cleaning the knife for the next butter or cheese buyer. Across the ceiling dried apples hung from one year's end to the other. If they were not thoroughly dried in the beginning, they were certain to be so after several months of dust baths when the boy swept the sawdust, and after being exposed to the heat from the kerosene lamps, the odor of which permeated everything in the place. This smell was augmented by the leaky oil barrels, as likely as not to be placed next to those holding sugar. When one considers the enormous variety of crackers, suited to dainty luncheon and tea service, the memory of the coarse, tasteless "soda crackers" in the open barrel fails to add to any desire to live again in the days of old.

And the candy sticks in jars, the outer sugary covering with fly specks and dust obliterating the stripes. Not much like the chocolates and bonbons in the high class grocery of today. The question of sugar is an interesting one to consider in this scale of comparison. Very little white sugar was used and such a thing as the dainty domino blocks was unknown. Sugar, loose in barrels, was done up in cheap straw paper which lay on counters, collecting dirt. No bags, no boxes, no cartons. It was an age of looseness in every sense of the word. The insanitary conditions that prevailed make it all the more wonderful that any one lived to go over in retrospect the "good old days."

Today in some of the country districts, where the Civil War is discussed as a current event, the tourist, held up by a puncture, can get some idea of the conditions holding sway in the old-time grocery. The odor of soused mackerel from the open barrel, the admixture of thyme, sage, garlic and green peppers hung up to gather dust and nurture flies, is the perfume of the past, which also assails the nostrils in the hole-in-the-wall grocery shops of the unclean foreign merchants in congested tenement districts in the cities.

What memories are aroused at sight of the present-day appetizing jars of mince meat, of mother chopping suet and apples, seeding raisins and currants, in fact working herself almost sick to put up a crock for the winter pies, many times losing the whole thing through mould. The housewife today does not have to worry over the exhausting process of canning and preserving. Fruits and vegetables put up according to the most highly scientific and sanitary methods can be bought optionally. There is no need to begin with the first strawberry and labor all through the hot summer to secure a supply of fruits and vegetables in the order of their coming from spring to autumn.

Some may argue that buying in this way is extravagant, but how much more extravagant is the wasted energy, and

also the ingredients when the cook finds that after all her pains there is something wrong with the preserves or the catsup, and the whole lot must be thrown away. How much better to pay a little more, perhaps, and get the assured certainty of perfect results with the absolute germproof methods of packing and sealing now in vogue.

Every trade evolution has a beginning and a reason, and just as there is no longer doubt that the American manufacturer employs the most sanitary methods in the world, there is no longer doubt that the change from the bulk and barrel package of shipment to the convenient retail package as the unit of trade, was the inspiration of the manufacturer. The manufacturer of good material wanted a means of identifying his product and making it known to the consumer. Therefore the evolution of the retail package as the unit of trade.

From the doubtful depths of bin and barrel, with its pound methods, variable scales and the many handlings by the unwashed hands of the grocery clerk, has come the era of the retail package, air tight, moisture and dust proof, its contents free from the touch of human hands, from the moment it is organized in the factory, until it is finally opened for the table. Value must be computed at the consumer's table and not at the grocery store or at the factory. The package itself is a necessary element of this value. It is useless to put modern package quality into bulk goods, and as a matter of fact, the quality now generally prevailing was unheard of before the birth of the retail package.

From information gathered from the personal representative of a well known grocery house, the marked difference between old-time grocery methods and those of the present day is clearly shown. The grocery stores of today can furnish everything for every meal in tins, glass jars, and cartons or bags. There are oysters with the tang of the sea, crabs, lobsters, clams, and fish, also suitably prepared dressings to accompany them. The French entrees, for which many a millionaire engages a special chef, come in such variety that the hostess with no help in the kitchen, or with only one maid at the most, can serve her guests with braised beef, sweetbreads a la financiere, galantine chicken, salmi of goose a la Rothschild and dozens of other entrees that occupy a place in the epicurean niche of fame. Even roast and corned beef, whole roast chicken and corned beef hash are among the possibilities of purchase in the modern grocery.



THE UNSANITARY GROCERY WITH ITS EXPOSED WARES.
Here the milk can jostles the oil barrel. Prunes, bread, ham, etc., have no protection from the menace of germs. The dirty floor adds to the danger.

The prepared breakfast foods which daily are growing in number and deliciousness solve the worry of cooking that is the early morning bugbear of the housewife. Soups, health food products, extracts of meat, ham, bacon, sausage, smoked beef and smoked tongue can be stocked in the larder with various cooked and potted meats so that the unexpected guest need strike no terror to the hostess and many a marital disagreement, based on the forgetfulness of the husband to notify his wife of the hospitable invitation, can be avoided. And how much easier it is to open a glass jar or tin, in which the contents are prepared with accuracy, cleanliness and assured culinary knowledge in the highest degree, than to wrestle with a cooked dish which stubbornly refuses to act right just when a good impression is hoped to be made on the company gathered at the board.

Unquestionably the housewife of the present should be thankful that she did not live in the old days. Housekeeping, as far as setting the table with the choicest edibles is concerned, has become a matter of wonderful simplicity and supreme success.

As a demonstration in grocery evolution the following menus from breakfast to the midnight supper, every dish of which comes either in packages, tins or jars, will be the most convincing proof of what possibilities for pure food, and delicious food as well, have opened through the wonderful progress made from the old-time grocery to the grocery of today:

BREAKFAST.

Oranges, Corn Flakes, Evaporated Cream, Bacon, Old Virginia Breakfast Roe, Potato Chips, Rolls, Instant Postum.

LUNCHEON.

Oyster Cocktail, Bouillon, Rusks, Crab Meat Canapes, Salted Almonds, Olives, Braised Beef a la Jardinere, Petit Pois, Chestnuts in Cream, Chicken Breast in Jelly, Celery Branches, Wafers, Brie Cheese, Brandy Peaches, Ice Cream, Coffee.

DINNER.

Hors d'Oeuvres, Oysters, Petit Marmite, Lobster Cutlets, Sauce Tartare, Roast Beef with Mushroom and Truffles, Artichokes, Flagolets, Whole French Roast Capon, Cold Asparagus, Wafers, Cheese, Wine Jelly, Plum Pudding, Bonbons, Mineral Waters, Coffee.

SUPPER.

Caviare Sandwiches, Deviled Tongue, Wafers, Cheese, Ginger Ale, Russian Tea.

Aside from superior sanitary conditions there are in the groceries of today features that appeal to the eye, and of which the old-time grocer never dreamed. Take, for example, the demonstrations which are means of introducing new brands of tea and coffee, gelatines, pancake flours, and plum puddings. In one establishment which caters to the highest trade, demonstration booths are arranged with as much care and art as though the setting was for tableaux or pictures.

A new brand of tea is dispensed in a wistaria bower, by a dainty maid in Chinese robes, who graciously bestows a smile with the little shell-like cup of fragrant tea, following her hospitality by a talk that rarely allows a partaker to go away without purchasing a package of the new blend. Miss Cherry Blossom of Tokio induces you to sample a cup of fragrant coffee, or a pretty white-capped and aproned saleswoman, of glib tongue and skillful fingers, will show you a newer, quicker and better way of preparing a cereal or a custard.

How tempting are those booths daintily draped, and rich in the colors of fruit desserts, in their layers of "ready-in-a-minute" jelly. Not a section of these big stores but which puts forth its special enticement. The large glass jars of California fruits and vegetables, cut into strange geometrical devices, or in their natural size and shape are studies in the bottling art that the old-time grocer would have regarded as beyond the realm of possibility. There is no kinship save in name between the grocery of fifty years ago and the grocery of today.—*Courtesy of Leslie's Weekly, Copyrighted* 1913.

MISSOURI'S NEW FOOD COMMISSIONER.

Frederick H. Fricke, who was recently appointed State Food and Drug Commissioner of Missouri, as announced in a late issue of THE AMERICAN FOOD JOURNAL, is a native of St. Louis, and was born on April 4, 1873. He attended the public schools of the city, and subsequently the College of Pharmacy, where he graduated as a druggist. Mr. Fricke has a practical experience of the drug business, and was president of the well known firm of Fricke-Hahn Drug Company, which owned and operated over twenty drug stores in the city of St. Louis. During his twenty-five years' experience in the business he has mastered every detail of it, and is regarded as one of the most expert druggists in St. Louis.

He is a member of the American Pharmaceutical Association, Missouri Pharmaceutical Association, and the Retail Druggists' Association, and has been very prominent in all of these bodies. In 1897 Mr. Fricke married Miss Willig of Alhambra, Ill., and has one daughter. He has always taken a keen and active interest in public affairs, both in civic and improvement associations.

A law was recently passed in the legislative assembly, changing the office of the Pure Food and Drug Commissioner



Gerhard Sisters, Photo, St. Louis.

F. H. FRICKE,
State Food and Drug Commission of Missouri.

to St. Louis, and Mr. Fricke is now located in the La Salle building in that city. He is devoting himself with assiduity to mastering every detail of the business of the department, and is engaged in prosecuting a vigorous crusade against the sale of impure foods and drugs, demanding a thorough compliance with the provisions of the food and drug act. He has announced as part of his policy in managing the department that all persons liable to come within his jurisdiction will be given fair and courteous treatment, and so far as he can accomplish they will be informed of what the law requires them to do in the sale of food and drugs, so as to avoid the necessity of prosecution, except in cases where the circumstances imperatively demand it.

When asked as to his purposes and intentions in carrying out the details of the department, Mr. Fricke said, "I have accepted this appointment at the hands of Gov. Major, not because of the salary, which is inadequate, having regard to the responsibile duties attached to the position, but because I believe that this is one of the most important departments in the government of the state, and it can be made a valuable agency in promoting the health and welfare of the masses of the people. Before I accepted this appointment, I had studied pure food and drugs, and am glad to have the opportunity of carrying some of my ideas into effect. The pure food and drug business is still in its infancy—it has only passed its experimental stage, and there are many defects to be removed, and additions to be made to the law, before the highest efficiency can be obtained in the administration of the affairs of the department. I expect to have some recommendations to make to the next legislature, but in the meantime will endeavor to give an administration of the affairs of the office which I hope will be satisfactory to the citizens of this state, without reference to party affiliations."

ICE CREAM MANUFACTURERS MEET.

The thirteenth annual convention of the Illinois Association of Ice Cream Manufacturers met at the Jefferson Hotel, Peoria, Ill., April 9. There were about fifty members of the association present, delegates coming from all parts of the state. Mayor Woodruff of Peoria gave the address of welcome to the convention, which was responded to by Mr. R. A. Woodhull, secretary of the national association.

Among the speakers before the convention was Mr. John B. Newman, assistant state food commissioner of Illinois, who gave an extended talk on pure foods and sanitation in ice cream factories. Mr. Newman stated that the commission was willing to assist in an effort to secure legislation requiring consumers to thoroughly clean, and if possible sterilize empty ice cream cans before returning them to the manufacturer; also to prevent the return of broken packages of ice cream.

He said also that the State Food Commission is not quite ready to promulgate the ice cream standard, as they are going into the matter more thoroughly before doing so.

Mr. Peterson, inspector from the food department also gave a talk and told of the importance of clean cans coming into the factory.

Resolutions were adopted endorsing the efficiency of the Illinois State Food Commission, and it was commended for the help that has been given to ice cream manufacturers, and co-operation in setting them right on difficult problems.

The next convention of the ice cream manufacturers will probably be held in Chicago sometime in the fall, possibly in connection with the National Dairy Show.

Election of officers resulted as follows:

President, John T. Cunningham, Chicago, Ill.
Vice President, W. A. Schwindler, Quincy, Ill.
Treasurer, Gordon Sinclair, Galesburg, Ill.
Secretary, M. Loewenstein, Chicago, Ill.

These officers together with R. A. Woodhull of Chicago and W. C. Volberding, of Watseka, comprise the executive committee of the association.

ANOTHER MONTH OF OYSTERS.

It will be of interest to every housewife who likes to serve good oysters to learn that they are of just as good flavor in May as some of the earlier months. This is claimed to be true in spite of the popular idea that oysters are only good in months whose name contains the letter "R." A writer in *Leslie's Weekly* says it has been determined that if the winter is severe oysters do not have as much of their natural food during January and February and as a consequence frequently lose a little in plumpness. As soon as the water begins to get warmer in March and April, however, "the beautiful little microscopic diatoms, which constitute the principal food of the oysters, multiply much more rapidly, consequently the oysters grow fat and improve in texture and flavor, so that they are frequently at their best in April and May."

Professor Phelps of the Massachusetts Institute of Technology has recently added his opinion to that of Professor Gorham of Brown University and Professor Nelson of Rutgers College, and other scientists by coming out strongly in a lecture and in an article in the *Science Conspectus*, condemning sensational writers who seek prominence and notoriety by attacking different food products without regard to the facts. "So far as the evidence goes," continues *Leslie's*, "it is a thousand times as dangerous to drink milk as it is to eat oysters, and it is a hundred times as dangerous to go on a railroad train, or to go in an automobile, or to walk the streets where automobiles abound, as it is to eat oysters. One death is claimed from eating oysters in two years, while 10,585 persons were killed on steam railroads in the United States in the year ending June 30, 1912."

The Washington Point of View.

By Our Staff Correspondent.

WASHINGTON, April 26.—In disposing of the case of George McDermott, plaintiff in error, against the state of Wisconsin, and T. H. Grady against the same state, the Supreme Court of the United States passed on the questions there presented and on them only. It will be well for those interested in food and drug laws to remember that and remember it well. The disposition made of the Wisconsin cases cannot be taken as disposing of other cases without risk.

The judges of the Supreme Court of the United States are among the wisest men in the land. They are less concerned with the refinements of law than they are in seeing to it that substantial justice is done and that what is law for one man is also law for another.

In achieving their end, they consider facts which to many an ordinary man would not seem important at all. They applied what the Chief Justice called the rule of reason in the tobacco trust cases to such good purpose that they brought back into that case defendants which the lower court had dismissed because one or the other of the big companies that compose the trust did not own a mjority of the stock of one of the cigar selling companies. The justices looked beyond the mere title of the stock and decided that the trust does control the selling company notwithstanding the fact that it is a minority stockholder.

In the McDermott and Grady cases the court decided in favor of the makers of the corn cyrup, not because the company that makes the particular product is a big corporation but simply because, either through ignorance or malice, the men composing the government of the sovereign state of Wisconsin decided that syrup made from corn should bear a name, which may be chemically correct, but which, in fact, would be false and misleading to the ultimate consumer because it conveyed to him the idea that the syrup was something to be avoided.

There is no profit in bandying words. Glucose, to the averge man, means something to be avoided. Sucrose might give him the same idea. The court and the authorities decided with regard to the label on the corn syrup in question, exactly as would a jury of fair-minded men, after the matter had been fully explained to them, especially after they had become acquainted with the fact that years ago, when the makers of cane sugar thought corn sugar might destroy their business, they engaged in a campaign of defamation of glucose, which was so successful that the chemical term applied to the product of "incomplete hydrolysis of the starch of corn" became synonymous with any or all terms of opprobrium to be found in the dictionary.

Any sane man, when told that the syrup which he had tasted was made from the starch of corn would call it corn syrup. He would not even go to the trouble of saying the syrup of the starch of corn. Not one in ten million would call it glucose because glucose may be obtained from other substances.

But Wisconsin passed that foolish statute saying that corn syrup or glucose, when sold within that state, should bear no label other than the one prescribed by it and obviously intended to bring up the article in question the public scorn created by the campaign of misrepresentation and by means of such campaigns all progress in the preparation of food. There is hardly an article of food that could not be made obnoxious to the stomach of the average man by means of such campaigns.

None of the facts with regard to the campaign against corn sugar are mentioned in the corn syrup opinion written by Justice Day. It was not necessary. The question of the value of corn syrup as a food, the cleanliness of the factories in which it was made or the effect upon the health of the person using it were not before the court at all.

The sole question was as to whether Wisconsin has the power to require the removal of a label which attests compliance with the nation's law and the substitution therefor of a label prescribed by the state of Wisconsin.

The answer is "No." Goods that comply with the federal law on the subject, when they pass from one state to another, do not lose rights acquired under that law because some state has come to a conclusion differing from the decision of the national government. The nub of the whole decision is to be found in these words:

"Conceding to the state the authority to make regulations consistent with the federal law for the further protection of its citizens against impure and misbranded foods and drugs, we think to permit such regulation as is embodied in this statute (Wisconsin pure food law) is to permit a state to discredit and burden federal regulations of interstate commerce, to destroy rights arising out of the federal statute, which have accrued both to the government and the shipper, and to impair the effect of a federal law which has been enacted under the constitutional power of Congress over the subject.

"To require the removal or destruction before the goods are sold of the evidence which Congress has, by the Food and Drugs Act, as we shall see provided, may be examined to determine the compliance or non-compliance with the regulations of the federal law, is beyond the power of the state."

Whether the state might require the use of an additional label is a question that was not and could not have been raised in these cases. If there is one thing the Supreme Court tries to avoid, it is that of deciding questions that are not involved in cases presented to it. If other cases, such as the Indiana benzoate case, present that question, it will be necessary for the court to consider an entirely distinct line of former decisions.

Inasmuch as the food and drugs act is an exercise of the power of Congress, granted in the various commerce clauses of the Constitution, it is necessary for courts in passing upon it to consider the effect upon the Food and Drugs Act case before it of decisions made by it in cases brought by reason of orders of the interstate commerce commission. That statement is sufficient to warn those who attempt to take the Karo decision and make it fit other food and drugs cases. The best way to look at the Day opinion is as applying only to the corn syrup case.

It is safe, however, to assert that it re-enforces, if such a thing was necessary, the general rule that no state has the power to place a burden on interstate commerce. Right at that point it is well also to warn those who want to apply the decision to beware of giving too much weight to original package decisions. The original package decisions were made when questions of taxation came up and even a law student knows that taxation and regulation are widely distinct matters.

The decision points to a rule that if an article of food and drugs complies with the national law, then there is no state law that can require anything more of the manufacturer or the man who sells it than the federal law requires.

State railroad commissioners are learning that Congress, having enacted a law for the regulation of interstate carriers, there is precious little left for them to regulate, other than the sanitary condition of stations, and the operation of local trains. But in exercising that small amount of power they must be careful not to place a burden upon the carrier as to his property within a given state that the carrier, to "break even," must exact higher rates on business done in other states or between the states.

One of the questions that will undoubtedly come up when states try to require state labels in addition to the federal labels is the query whether the expense of providing the extra labels and affixing them is not a burden on interstate commerce not warranted by the constitution of the United States.

It is conceivable that a manufacturer selling his goods in all the states might be asked to provide a label for each state. He could have forty-eight or fifty labels printed. Nobody will contend that it will be no more expensive for him to provide goods for his Chicago distributing house, with labels appropriate for the territory covered by that house than if use of the federal label would entitle him to go into any and every state.

The state of Texas tried to give a preference to her manufacturers and shippers as against manufacturers in Shreveport, La., by fixing rates on shipments within Texas so low that the Shreveport merchants could not send their goods into Texas on the interstate rates the carriers had to make to recoup their losses on Texas business. The interstate com-

merce commission prescribed a lot of rates for Shreveport that were substantially the same for equal distances from Shreveport into Texas, as the Texas commission had prescribed for business in Texas. That enabled Shreveport merchants to ship out goods on an equality with Dallas merchants on substantially the same terms.

The commerce court only a few days ago approved the work of the commission. Minnesota and other western states, following the lead of Texas, also decreed low intrastate rates. The railroads resisted the collection of such low charges on the ground that they would not give them money enough to operate their roads at a profit because they could not raise their interstate rates above the levels decreed by the federal government to be reasonable. They claimed the state laws put them between the devil and the iron foundry, as they say in the iron trade.

The Supreme Court has not yet passed upon those cases. It is believed, however, that the court's long consideration arises not from any doubt as to what the rule is, but because of the assertion of the railroads that they are entitled to seven per cent on their investment. Judge Sanborn decided that it would be confiscation of their property if they were not allowed to earn that much.

If the court rules against the railroads, the chances are that it will do so on the sole ground that so long as they make any profit their property is not confiscated, within the meaning of the constitution. It is true that the tendency of the courts has been to get away from the view that any return makes an allegation of confiscation untenable, but it is doubtful whether the court is prepared to go so far as to hold that dividends of less than seven per cent make out a prima facie case of confiscation or unreasonable rates.

The discussion on account of the Karo case has rather overshadowed the fact that the department of agriculture has a new solicitor in the person of Francis G. Caffey, a native of Alabama, but appointed from New York, where he was a member of the firm of Clark, Breckenridge and Caffey. He frankly admits that he hardly knew there is such an institution as the Department of Agriculture or a Food and Drugs Act, before he was suggested for the place. But that does not indicate that he will not be able to hand out constructions of the food and drugs act that will be within hailing distance of what is reasonable.

So far as surface indications go, Mr. Caffey is following a safe and sane course in that he is using the knowledge acquired by the men in the office during the troublous times when the statute was being interpreted and construed.

Until just before the appointment was made there was a strong idea that Secretary Houston would pick one of the men in the office. But the competition between Messrs. Jones, McConville and Williams became so spirited that the selection of an outsider was not at all surprising.

Mr. Caffey makes fully as favorable impression as the man who succeeded James Wilson. In fact, it is a pleasure to realize that, possibly by a narrow margin, President Wilson escaped the calamity that would have fallen on the food and drugs trades if the limber-jawed element that tried to blacken the reputations of James Wilson and George P. McCabe had succeeded in influencing him in the selection of a secretary of agriculture.

The department, thus far, is operating with a smoothness and a celerity that is pleasing. The new secretary, instead of undertaking to thresh over old straw, is devoting a large share of his time to the intensely practical business of trying to organize his new bureau of markets so that, if it be possible, the extremely high cost of getting food from the producer to the consumer, will be cut down.

ECONOMICS OF COLD STORAGE.

The economics of cold storage is covered by a recently issued bulletin prepared by George K. Holmes, chief of the division of production and distribution, bureau of statistics, department of agriculture. The information was collected from a large number of cold storage warehouses, both private and public, situated in all parts of the United States. The commodities represented are fresh beef, mutton and pork, dressed poultry, butter and eggs. The subject of cold strorage commodities in relation to prices is covered by another bulletin, recently issued.

During the three heavier cold storage months (September, October, November) of the storage year 1910-11, 47 per cent of the fresh beef placed in cold storage during the whole year was received into the warehouses, 59.8 per cent of the fresh mutton (August, September, October), 59.2 per cent of the dressed poultry (November, December, January), 70 per cent of the butter (June, July, August and sometimes May), and 79.4 per cent of the eggs (April, May, June).

In the lighter cold storage months of the same year, February, March and April, 10.3 per cent of the fresh beef placed in cold storage during the whole year was received into warehouses; in February, March and April, 8.1 per cent of the mutton; in May, June and July, 3.4 per cent of the dressed poultry; in February, March and April, 2.7 per cent of the butter; and in December, January and February, 1.4 per cent of the eggs. The receipts of fresh pork into cold storage are quite evenly distributed throughout the year.

It was established in this investigation that 71.2 per cent of the fresh beef received into cold storage in the cold storage year 1909-10 was delivered within three months after receipt, 28.8 per cent of the fresh mutton, 95.2 per cent of the fresh pork, 75.7 per cent of the dressed poultry, 40.2 per cent of the butter, and 14.3 per cent of the eggs.

The percentage of the year's receipts delivered in seven months is 99 for fresh beef, 99.3 per cent for fresh mutton, 99.9 per cent for fresh pork, 96.1 per cent for dressed poultry, 88.4 per cent for butter, and 75.8 per cent for eggs.

An important result of this investigation is that the receipts of fresh beef, mutton and pork, dressed poultry, butter and eggs, into cold storage are entirely or very nearly exhausted by the deliveries within ten months.

It is a matter of some consequence to farmers and to consumers if the cold storage of farm products results in carrying over to the next year of production a quantity large enough to depress the price of that year. From the natural storage year ending August, 1910, 9.8 per cent of the receipts are carried over to the next year in the case of fresh beef; the percentage for fresh mutton for the natural storage year ending July, 1910, was 15.1 per cent; for fresh pork for the natural storage year ending April, 1910, 5.4 per cent; for dressed poultry for the natural storage year ending July, 1910, 7.7 per cent; for butter for the natural storage year ending April, 1910, 4.9 per cent; and for eggs for the natural storage year ending April, 1910, 0.2 of 1 per cent.

The fresh beef received into cold storage during the year beginning May, 1909, was kept there on the average for 2.28 months; the fresh mutton 4.45 months; the fresh pork 0.88 of 1 month; and the butter 4.43 months. The dressed poultry received during the year beginning March, 1909, was kept on the average 2.42 months; the eggs 5.91 months.

The report states that the owners of cold storage commodities "must use good judgment and take their goods out of storage before the costs of storage added to the original cost of the goods and some profit, will raise the total amount of cost of goods above the market price. It is a problem of the future."

For the average length of time in cold storage, as ascertained in this investigation, the actual costs of storage are: For fresh beef, 0.997 of 1 cent per pound; fresh mutton, 1.564 cents per pound; fresh pork, 0.350 of 1 cent per pound; for dressed poultry, 1.079 cents per pound; for butter, 2.532 cents per pound; for eggs, 3.505 cents a dozen.

This investigation endeavors to arrive at some tentative conclusions with regard to the percentage of the national production that enters into cold storage during the year. The results of estimates and computations make it appear that 3.1 per cent of a year's production of fresh beef, commercial slaughter, goes into cold storage; 4.1 per cent of the commercial slaughter of mutton, and 11.5 per cent of the commercial slaughter of pork. Of the farm and factory production of butter during the year, 9.6 per cent goes into cold storage, and of the farm and nonfarm production of eggs, 15 per cent.

A computation of the wholesale value of five of the commodities embraced in this investigation received into cold storage during the year is ventured, with the result that the wholesale value of the fresh beef received into cold storage is estimated to be $15,000,000; of the fresh mutton $1,600,000; of the fresh pork, $18,000,000; of the butter, $40,000,000; and of the eggs, $64,000,000. The total wholesale value of these commodities received into cold storage during the year is $138,000,000 at prices of the year ending October, 1911.

It is declared in this report that the results have been established by inductive processes, and, in this respect, that they are more or less distinguished from results of investigations by state commissions, which have had a narrow basis of fact and have depended considerably upon the academic processes of assumed incomplete premises and upon deductions. The investigation negatives some popular misconceptions with regard to the cold storage business, and substantially sustains some of the assertions made by cold storage warehousemen.

Supreme Court Decision in Wisconsin Corn Syrup Case

SUPREME COURT OF THE UNITED STATES.
Nos. 112 and 113—October Term, 1912.

George McDermott, Plaintiff in Error, 112, vs. The State of Wisconsin, T. H. Grady, Plaintiff in Error, 113, vs. The State of Wisconsin. In error to the Supreme Court of the State of Wisconsin.

(April 7, 1913.)

Mr. Justice Day delivered the opinion of the court.

The plaintiffs in error, George McDermott and T. H. Grady, were severally convicted in the circuit court of Dane county, in the State of Wisconsin, upon complaints made against them by an assistant dairy and food commissioner of that state for the violation of a statute of Wisconsin relating to the sale of certain articles and for the protection of the public health. The convictions were affirmed by the decision of the supreme court of Wisconsin. 143 Wis. 18.

The complaint against McDermott charged that on March 2, 1908, at Oregon, in Dane county, he "did unlawfully have in his possession with intent to sell, and did offer and expose for sale and did sell, a certain article, product, compound and mixture composed of more than seventy-five per cent glucose and less than twenty-five per cent of cane syrup, said cane syrup being then and there mixed with said glucose, and that the can containing said compound and mixture was then and there unlawfully branded and labeled 'Karo Corn Syrup' and was then and there further unlawfully branded and labeled '10 per cent Cane Syrup, 90 per cent Corn Syrup,' contrary to the statute in such case made and provided." As to Grady, the complaint was similar to that against McDermott except that the label designated the mixure as "Karo Corn Syrup with Cane Flavor" and added "Corn Syrup, 85 per cent." The statute of Wisconsin for the violation of which plaintiffs in error were convicted is found in Laws of Wisconsin for 1907 at page 646, being chapter 557, and the pertinent parts of it are as follows:

"Section 1. * * * No person * * * by himself * * * or agent * * * shall sell, offer or expose for sale or have in his possession with intent to sell any syrup, maple syrup, sugar-cane syrup, refiners' syrup, sorghum syrup or molasses, mixed with glucose, unless the barrel, cask, keg, can, pail, or other original container, containing the same, be distinctly branded or labeled so as to plainly show the true name of each and all of the ingredients composing such mixture, as follows:

* * * * * * * * *

"Third. In case such mixture shall contain glucose in a proportion exceeding 75 per cent by weight, it shall be labeled and sold as 'Glucose flavored with Maple Syrup,' 'Glucose flavored with Sugar-Cane Syrup,' * * * 'Glucose flavored with Refiners' Syrup' * * * as the case may be. The labels * * * shall bear the name and address of the manufacturer or dealer. * * * In all mixtures in which glucose is used in the proportion of more than 75 per cent by weight the name of the syrup or molasses which is mixed with the glucose for flavoring purposes and the words showing that said syrup or molasses is used as a flavoring, as provided in this section, shall be printed on the label of each container of such mixture * * * The mixture or syrups designated in this section shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharin substance; * * * nor shall any of the aforesaid glucose, syrups, molasses or mixtures contain any substance injurious to health, nor any other article or substance otherwise prohibited by law in articles of food."

The facts are that the plaintiffs in error were retail merchants in Oregon, Dane county, Wisconsin; that before the filing of the complaints against them each had bought for himself for resale as such merchant from wholesale grocers in Chicago and had received by rail from that city twelve half-gallon tin cans or pails of the articles designated in the complaints, each shipment being made in wooden boxes containing the cans, and that when the goods were received at their stores the respective plaintiffs in error took the cans from the boxes, placed them on the shelves for sale at retail, and destroyed the boxes in which the goods were shipped to them, as was customary in such cases. From their nature, the articles thus canned and offered to be sold, instead of being labeled as they were, if labeled in accordance with the state law, should have been branded with the words "Glucose flavored with Refiners' Syrup," and, as the statute provides that the mixtures of syrups offered for sale shall have upon them no designation or brand which represents or contains the name of a saccharin substance other than that required by the state law, the labels upon the cans must be removed if the state authority is recognized.

Plaintiffs in error contend that the cans were labeled in accordance with the Food and Drugs Act passed by Congress, June 30, 1906 (34 Stat. 768, ch. 3915), and that fact is evidenced by the decision of the secretaries of the treasury, agriculture and commerce and labor made under the claimed authority of that act, which is as follows:

"Washington, D. C., February 13, 1908.

"We have each given careful consideration to the labeling, under the Pure Food Law, of the thick, viscous syrup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup as corn syrup, and if to the corn syrup there is added a small percentage of refiners' syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'corn syrup with cane flavor.'

"George B. Cortelyou, Secretary of the Treasury.

"James Wilson, Secretary of Agriculture.

"Oscar H. Strauss, Secretary of Commerce and Labor."

And it is insisted that the federal food and drugs act passed under the authority of the Constitution has taken possession of this field of regulation and that the state act is a wrongful interference with the exclusive power of congress over interstate commerce, to which, it appears, the goods in question were shipped. The case presents, among other questions, the constitutional question whether the state act in permitting the sale of this article only when labeled according to the state laws is open to the objection just indicated.

That congress has ample power in this connection is no longer open to question. That body has the right not only to pass laws which shall regulate legitimate commerce among the states and with foreign nations, but has full power to keep the channels of such commerce free from the transportation or illicit or harmful articles, to make such as are injurious to the public health outlaws of such commerce and to bar them from the facilities and privileges thereof. Congress may itself determine the means appropriate to this purpose, and so long as they do no violence to other provisions of the Constitution it is itself the judge of the means to be employed in exercising the powers conferred upon it in this respect. *McCulloch v. Maryland,* 4 Wheat, 316, 421; *Lottery Case,* 188 U. S. 321, 355; *Hipolite Egg Co. v. United States,* 220 U. S. 45, *Hoke v. United States,* 227 U. S. 308.

The Food and Drugs Act was passed by congress, under its authority to exclude from interstate commerce impure and adulterated food and drugs and to prevent the facilities of such commerce being used to enable such articles to be transported throughout the country from their place of manufacture to the people who consume and use them, and it is in the light of the purpose and of the power exerted in its passage by congress that this act must be considered and construed. *Hipolite Egg Co. v. United States, Supra.*

Section 2 of the act provides that "the introduction into any state or territory or the District of Columbia from any other state or territory or the District of Columbia * * * of any article of food or drugs which is adulterated or misbranded, within the meaning of this act, is hereby prohibited; and any person who shall ship or deliver for shipment from any state or territory or the District of Columbia to any other state or territory or the District of Columbia * * * any such article so adulterated or misbranded within the meaning of this act, * * * shall be guilty of a misdemeanor, and for such offense be fined," etc. The article of food or drugs, the shipment or delivery for shipment in interstate commerce of which is prohibited and punished is such as is *adulterated* or *misbranded within the meaning of the act.* What it is to adulterate or misbrand food or drugs within the meaning of the act requires a consideration of its other provisions, wherein such adulteration or misbranding is defined.

According to the terms of Section 7 drugs are "adulterated" where, if they are sold under a name recognized in the United States Pharmacopœia and differ from the standard of strength therein laid down, the standard of strength, etc., is not plainly stated upon the bottle, box, or other container; and food is "adulterated" where it contains an added poisonous or other added deleterious ingredient which may render it injurious, except that, where directions are printed on the

covering or the package for the necessary removal of such preservative, the provisions of the act shall apply only when the food is ready for consumption. Turning to Section 8, we find that the term "misbranded" as used in the statute, shall apply to all drugs or articles of food, the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which is false or misleading in any particular, and to any food or drug product which is falsely branded as to the state, etc., in which it was manufactured; and in the case of drugs it is provided that, if the contents of the package as originally put up shall have been removed in whole or in part and other contents placed in such package, or, if the package fail to bear a statement on the label as required, the drugs shall be deemed misbranded; and as to food, if it shall be labeled or branded so as to deceive or mislead a purchaser, or purport to be a foreign product when not so, or, if the contents of the package as originally put up shall have been removed in whole or in part and other contents placed in such package, or, if the package fail to bear a statement on the label as required, or, if in package form and the contents are stated in terms of weight or measure and they are not plainly and correctly stated on the outside of the package, or if the package containing it or its label contain any design or device regarding the ingredients or the substances contained therein which are false or misleading in character, the food shall be deemed misbranded. That the word "package" or its equivalent expression, as used by congress in Sections 7 and 8 in defining what shall constitute adulteration and what shall constitute misbranding within the meaning of the act, clearly refers to the immediate container of the article which is intended for consumption by the public, there can be no question. And it is sufficient, for the decision of these cases, that we consider the extent of the word package as thus used only, and we therefore have no occasion, and do not attempt, to decide what congress included in the terms "original unbroken package" as used in the second and tenth sections and "unbroken package" in the third section. Within the limitations of its right to regulate interstate commerce, congress manifestly is aiming at the contents of the package as it shall reach the consumer, for whose protection the act was primarily passed, and it is the branding upon the package which contains the article intended for consumption itself which is the subject-matter of regulation. Limiting the requirements of the act as to adulteration and misbranding simply to the outside wrapping or box containing the packages intended to be purchased by the consumer, so that the importer, by removing and destroying such covering, could prevent the operation of the law on the imported article yet unsold, would render the act nugatory and its provisions wholly inadequate to accomplish the purposes for which it was passed.

The object of the statute is to prevent the misuse of the facilities of interstate commerce in conveying to and placing before the consumer misbranded and adulterated articles of medicine or food, and in order that its protection may be afforded to those who are intended to receive its benefits the brands regulated must be upon the packages intended to reach the purchaser. This is the only practical or sensible construction of the act, and, for the reasons we have stated, we think the requirements of the act as so construed clearly within the powers of congress over the facilities of interstate commerce, and such has been the construction generally placed upon the act by the Federal courts. *In re Wilson,* 168 Fed. 566; *Hare-McCord Mercantile Co. v. United States,* 182 Fed. 46; *United States v. American Druggists' Syndicate,* 186 Fed. 387; *United States v. Ten Barrels of Vinegar,* 186 Fed. 400; *Von Bremen v. United States,* 192 Fed. 904; *United States v. Seventy-five Boxes of Alleged Pepper,* 198 Fed. 934.

While these regulations are within the power of congress, it by no means follows that the state is not permitted to make regulations with a view to the protection of its people against fraud or imposition by impure food or drugs. This subject was fully considered by this court in *Savage v. Jones,* 225 U. S. 501, in which the power of the state to make regulations concerning the same subject-matter, reasonable in their terms and not in conflict with the acts of congress, was recognized and stated, and certain regulations of the state of Indiana were held not to be inconsistent with the Food and Drugs Act of congress. While this is true, it is equally well settled that the state may not, under the guise of exercising its police power or otherwise, impose burdens upon or discriminate against interstate commerce, nor may it enact legislation in conflict with the statutes of congress passed for the regulation of the subject, and if it does, to the extent that the state law interferes with or frustrates the operation of the acts of congress, its provisions must yield to the superior Federal power given to congress by the Constitution. *Texas & Pacific Ry. Co. v. Abilene Cotton Oil Co.,* 204 U. S. 426; *Northern Pacific Ry. Co. v. Washington,* 222 U. S. 370; *Southern Ry Co. v. Reid,* 222 U. S. 424; *Second Employers' Liability Cases,* 223 U. S. 1; *Savage v. Jones,* supra, 533.

Having in view the interpretation we have given the Food and Drugs Act and applying the doctrine just stated to the instant cases, how does the matter stand? When delivered for shipment and when received through the channels of interstate commerce the cans in question bore brands or labels which were supposed to comply with the requirements of the act of congress. Whether the secretaries had the power under the Food and Drugs Act to make the regulation set out above is not now before us. It is enough for the present purpose to say that, so far as this record discloses, it was undertaken in good faith to label the articles in compliance with the act of congress, and if they were not so labeled, by Section 2 provision is made for the enforcement of the act by criminal prosecution and by Section 10 by proceedings *in rem.* Whether the labels complied with the federal law was not for the state to determine. This was a matter provided for by the act of congress and to be determined as therein indicated by proper proceedings in the federal courts.

The label upon the unsold article is in the one case the evidence of the shipper that he has complied with the act of congress, while in the other, by its misleading and false character, it furnishes the proof upon which the federal authorities depend to reach and punish the shipper and to condemn the goods. If truly labeled within the meaning of the act his goods are immune from seizure by federal authority; if the label is false or misleading within the terms of the law the goods may be seized and condemned. In other words the label is the means of vindication or the basis of punishment in determining the character of the interstate shipment dealt with by congress. While in this situation, the goods being unsold, as a condition of their legitimate sale within the state, and also of their being in the possession of the importer for the purpose of sale and of being exposed and offered for sale by him, the Wisconsin statute provides that they shall bear the label required by the state law and none other (which represents a saccharin substance, as do the labels in these cases). In other words, it is essential to a legal exercise of possession of and traffic in such goods under the state law that labels which presumably meet with the requirements of the federal law and for the determination of the correctness of which congress has provided efficient means, shall be removed from the packages, before the first sale by the importers. In this connection it might be noted that as a practical matter, at least, the first time the opportunity of inspection by the federal authorities arises in cases like the present is when the goods, after having been manufactured, put up in package form and boxed in one state and having been transported in interstate commerce, arrive at their destination, are delivered to the consignee, unboxed, and placed by him upon the shelves of his store for sale. Conceding to the state the authority to make regulations consistent with the federal law for the further protection of its citizens against impure and misbranded food and drugs, we think to permit such regulation as is embodied in this statute is to permit a state to discredit and burden legitimate federal regulations of interstate commerce, to destroy rights arising out of the federal statute which have accrued both to the government and the shipper, and to impair the effect of a federal law which has been enacted under the constitutional power of congress over the subject.

To require the removal or destruction before the goods are sold of the evidence which congress has by the Food and Drugs Act, as we shall see, provided may be examined to determine the compliance or noncompliance with the regulations of the federal law, is beyond the power of the state. The Wisconsin act which permits the sale of articles subject to the regulations of interstate commerce only upon condition that they contain the exclusive labels required by the statute is an act in excess of its legitimate power.

It is insisted, however, that, since at the time when the state act undertook to regulate the branding of these goods, namely, when in the possession of the plaintiffs in error and held upon their shelves for sale, the cans had been removed from the boxes in which they were shipped in interstate commerce, they had therefore passed beyond the jurisdiction of congress, and their regulation was exclusively a matter for state legislation. This assertion is based upon the original package doctrine as it is said to have been laid down in the former decisions of this court. The term original package had its origin in *Brown v. Maryland,* 12 Wheat. 419, in which this court had to consider the extent of the protection given

under federal authority to articles imported into this country from abroad for sale, and it was there held that (p. 441):

"When the importer has so acted upon the thing imported that it has become incorporated and mixed up with the mass of property in the country, it has, perhaps, lost its distinctive character as an import, and has become subject to the taxing power of the state; but while remaining the property of the importer, in his warehouse; in the original form or package in which it was imported, a tax upon it is too plainly a duty on imports to escape the prohibition in the Constitution."

That doctrine has been many times applied in the decisions of this court in defining the line of demarcation which shall separate the federal from the state authority where the sovereign power of the nation or state is involved in dealing with property. And where it has been found necessary to decide the boundary of federal authority it has been generally held that where goods prepared and packed for shipment in interstate commerce are transported in such commerce and delivered to the consignee and the package by him separated into its component parts, the power of federal regulation has ceased and that of the state may be asserted. Some of the cases in which this doctrine has been considered will be found in the margin.*

In the view, however, which we take of this case it is unnecessary to enter upon any extended consideration of the nature and scope of the principles involved in determining what is an original package. For, as we have said, keeping within its constitutional limitations of authority, congress may determine for itself the character of the means necessary to make its purpose effectual, in preventing the shipment in interstate commerce of articles of a harmful character, and to this end may provide the means of inspection, examination and seizure necessary to enforce the prohibitions of the act, and when Section 2 has been violated the federal authority, in enforcing either Section 2 or Section 10, may follow the adulterated or misbranded article at least to the shelf of the importer.

Congress having made adulterated and misbranded articles contraband of interstate commerce, in the manner we have already pointed out, provides in Section 10 of the act that such articles may be proceeded against and seized for confiscation and condemnation while being transported from one state, territory, district, or insular possession to another for sale, or, having been transported, remaining, "unloaded, unsold, or in original unbroken packages," and the subsequent provisions of the section regulate the disposition of the articles seized. To make the provisions of the act effectual, congress has provided not only for the seizure of the goods while being actually transported in interstate commerce, but has also provided for such seizure after such transportation and while the goods remain "unloaded, unsold, or in original unbroken packages." The opportunity for inspection en route may be very inadequate. The real opportunity of Government inspection may only arise when, as in the present case, the goods as packed have been removed from the outside box in which they were shipped and remain as the act provides, "unsold." It is enough, by the terms of the act, if the articles are *unsold*, whether in original packages or not. Bearing in mind the authority of congress to make efficient regulations to keep impure or misbranded articles out of the channels of interstate commerce, we think the provisions of Section 10 are clearly within its power. Indeed it seems evident that they are measures essential to the accomplishment of the purpose for which the act was intended.

The doctrine of original packages had its origin in the opinion of Chief Justice Marshall in *Brown v. Maryland* already referred to. It was intended to protect the importer in the right to sell the imported goods which was the real object and purpose of importation. To determine the time when an article passes out of interstate into state jurisdiction for the purpose of taxation is entirely different from deciding when an article which has violated a federal prohibition becomes immune. It was not intended to limit the right of congress, now asserted, to keep the channels of interstate commerce free from the carriage of injurious or fraudulently branded articles and to choose appropriate means to that end. The legislative means provided in the federal law for its own enforcement may not be thwarted by state legislation having a direct effect to impair the efficient exercises of such means.

For the reasons stated, the statute of Wisconsin, in forbidding all labels other than the one it prescribed, is invalid, and it follows that the judgments of the state court affirming the convictions of the plaintiffs in error for selling the articles in question without the exclusive brand required by the state, must be reversed, and the cases are remanded to the state court for further proceedings not inconsistent with this opinion.

True Copy.
Test:

_____,
Clerk Supreme Court U. S.

*Loisy v. Hardin, 135 U. S. 100; Rhodes v. Iowa, 170 U. S. 412, 424; Schollenberger v. Pennsylvannia, 171 U. S. 1, 19 et seq; May v. New Orleans, 178 U. S. 496; Austin v. Tennessee, 179 U. S. 343; American Steel & Wire Co. v. Speed, 192 U. S. 500, 519 et seq; Cook v. Marshal County, 196 U. S. 261; Heyman v. Southern Ry. Co., 203 U. S. 270, 276; Savage v. Jones, 225 U. S. 501, 520; Purity Extract Co. v. Lynch, 226 U. S. 192, 200.

BOOK REVIEW

Basic Principles of Domestic Science, by Lilla Frich, A. B., Supervisor Domestic Science, Minneapolis, Minn., Public Schools.

This is a volume consisting of a course of seventy-two illustrated lessons, the aim of the book being to present the basic principles of Domestic Science in a course of related lessons. Each lesson includes a page presenting the theory, and a page outlining the practice, illustrating the principle involved. The recipes given are planned especially for school use. Blank pages for notes are inserted in the volume.

The subject appears to be covered in a very comprehensive manner and written by Dr. Frich, the statements made can be accepted as authoritative.

Muncie Normal Institute, Publishers, Muncie, Ind.

Household Bacteriology for Students of Domestic Science, by Estelle D. Buchanan, M. S., recently assistant Professor of Botany at Iowa State Agricultural College, and Robert Earle Buchanan, Ph. D., Professor of Bacteriology, Iowa State Agricultural College, and Bacteriologist of the Iowa Agricultural Experiment Station.

The book is a revision of the lectures given to students in Home Economics at the Iowa State College of Agriculture and Mechanic Arts. The authors state that the volume has been divided somewhat arbitrarily into five sections. The first is on morphology and classification, the second on cultivation and observation of micro-organisms, and the third on physiology. The fourth section on fermentations and the fifth on the relationships of micro-organisms to health are planned to point out and emphasize the relationships of bacteriology to the preparation and preservation of foods, and to household sanitation and personal hygiene. The volume contains a large fund of information which every housekeeper would be the better for possessing, and it is given in form that is readable and easy to understand by the ordinary reader.

The MacMillan Company, Publishers, 66 Fifth Avenue, New York. Price, $2.25, net.

Candy Making Revolutionized, by Mary Elizabeth Hall.

Who Miss Hall, the author of this volume, may be is not revealed except that she has spent many years in candy making, and is credited as being from Boston. However, the publishers pronounce as a "momentous discovery" her methods of making candy from vegetables and state that the new process described in the volume "may well revolutionize the confectionery business." We are not so sure about the "revolution," but perhaps the author, more modest in her statements, is entirely correct when she says that her "discovery has opened to the home candy maker a whole new world. Previously," she continues, "many of the better sorts of confectionery—particularly of the decorative kinds—were out of her range, either because of the cost of the necessary ingredients or the difficulty of their purchase or handling," and it is with the home candy maker in mind that Miss Hall has written her book. Carrots, beets, peas, potatoes, parsnips, tomatoes are some of the common vegetables utilized, and we have no doubt that many of our readers would be interested to learn how to make these vegetable candies. The book gives clear, concise directions and contains a large number of recipes.

Sturgis & Walton Company, Publishers, New York City, New York. Price, 75 cents, net.

Watermelon seeds are now worth $5 gold per 100 pounds at Tientsin, China, states Consul General Knabenshue, while pumpkin seeds are quoted at $3.25 and $1.10 per 100 pounds, respectively, for the best and lower qualities. These seeds are served at Chinese dinners as salted almonds are served in America.

Official Program of the Seventeenth Annual Convention of the Association of American Dairy, Food and Drug Officials

To be Held at Mobile, Alabama, June 16 to 20, 1913.
Headquarters: Battle House. Place of Meeting: Battle House Auditorium.

OFFICERS OF THE ASSOCIATION.

President, L. Davies, Washington.
First Vice President Willard Hansen, Utah.
Second Vice President, W. B. Barney, Iowa.
Third Vice President, Niels P. Hansen, Nebraska.

Executive Committee.

The President and Secretary; W. P. Cutler, Missouri; H. E. Barnard, Indiana; J. H. Wallis, Idaho.

Other Standing Committees.

On Co-operation—Dr. S. J. Crumbine, Kansas; Hon. A. H. Jones, Illinois; Dr. M. E. Jaffa, California.

OFFICERS OF SECTIONS.

Section A—Hon. James Foust, Pa., Chairman; M. E. Jaffa, Cal., Vice Chairman; W. B. Barney, Iowa, Secretary; Frank A. Jackson, R. I., Treasurer.

Section B—William Frear, Pa., President; J. R. Chittick, Iowa, Vice President; T. J. Bryan, Ill., Secretary & Treasurer.

GENERAL ANNOUNCEMENTS.

The constitution as finally ratified and adopted at our sixteenth annual convention at Seattle provides for two sections.

The opening session will be Monday night, June 16, at 8 P. M. for addresses of welcome and President's annual address. The 17, 18, 19 and 20 will be given up to general work of the convention, except two half days, Tuesday and Wednesday afternoons, when the sections will meet.

All meetings will be held at the Auditorium of the Battle House.

At the suggestion of many members of the Association the Executive Committee recommends comparatively short papers, two members being designated in each case to take part in discussions, after which it is hoped to have a full discussion for the time allowed with opportunity for the member presenting the paper to close, if he desires. It is thus hoped to encourage a full and free discussion of every topic presented.

PROGRAM.

MONDAY, JUNE 16, 1913.
8 P. M.

Association Convenes.

Address of Welcome on Behalf of the State—His Excellency, Emmet O'Neal, Governor of Alabama.

Address of Welcome on Behalf of City—Hon. Laz Schwarz, Mayor of Mobile.

Address of Welcome on Behalf of Chamber of Commerce and Business League—Hon. William H. Ambrecht, President.

Response to Addresses of Welcome—Hon. Geo. L. Flanders, of New York.

President's Annual Address.

TUESDAY, JUNE 17.
10 A. M.

Meeting of General Association.

Enrollment.

Report of Standing Committees:

(a) Executive Committee.
(b) Committee on Co-operation.
(c) If any other.

Report of Secretary.

Report of Treasurer.

Appointment of Special Committees.

1—Best Methods for Supervision of Wholesomeness of Materials Used by Bakeries Restaurants and Eleemosynary Institutions, Prof. Chas. D. Howard, In Charge Food Work, New Hampshire.

To open discussion, Dr. E. F. Ladd, North Dakota.

Followed by Dr. Oscar Dowling, Louisiana.

2—Cold Storage, Hon. Wm. P. Cutler, Dairy Commissioner, Missouri.

To open discussion, Hon. W. M. Allen, North Carolina.

Followed by Hon. Maurice Groshon, Wyoming.

TUESDAY, JUNE 17.
1:45 P. M.

Section A—Dairy, Food and Drug Officials.

TUESDAY AFTERNOON.

Program of Section B—Analysts.

1—Address by President of Section B, Dr. Wm. Frear, Pennsylvania.

2—Constants of Sugar Vinegar, Wm. H. Harrison, Illinois.

3—Iodin Value of Normal and Abnormal Lards, Elton Fulmer, Washington.

4—A Rapid Method for Routine Specific Gravity Determination, J. R. Chittick, Iowa.

5—A Reichert-Meissl Distillation Stand, D. T. Gunning, Illinois.

6—Round Table—Laboratory Troubles.

TUESDAY, JUNE 17.
8 P. M.

Meeting of General Association.

1—Address, Hon. David Franklin Houston, United States Secretary of Agriculture, Washington, D. C.

2—Sanitation, Dr. Oscar Dowling, Louisiana.

WEDNESDAY, JUNE 18.
9 A. M.

Meeting of General Association.

1—Should Federal and State Laws Recognize and Allow Sub-Standardization of:

(a) Drugs—

Dr. L. F. Kebler, Chief of Drug Laboratory, United States Department of Agriculture, Washington, D. C.

To open discussion, Dr. F. E. Rose, Chemist, Florida.

(b) Foods—

Hon. Frank A. Jackson, Rhode Island.

To open discussion, A. E. Frantz, M. D., Delaware.

2—The Legitimate Scope of the Work of this Association and to What Extent, if Any, it is Entitled, As it is Formed to Criticise the Action of Individual States in Relation to Legislation and Administration of Food and Drug Laws, Dr. S. J. Crumbine, Chief Food and Drug Inspection, Kan-

To open discussion, Hon. J. Q. Emery, Wisconsin.

Followed by Hon. R. M. Allen of Kentucky.

3—Production of Wholesome Milk—Theory vs. Actual Practice, Hon. W. B. Barney, Iowa.

To open discussion, Ernest Kelly, Washington, D. C.

Followed by Hon. Willard Hansen, Utah.

WEDNESDAY, JUNE 18.
1:45 P. M.

Section Meetings.

Section A—Dairy, Food and Drug Officials.

Wednesday Afternoon.

Program of Section B—Analysts.

7—Paper by M. E. Jaffa, California (Subject to be announced later).

8—A Carbide-Dioxid Apparatus for CO_2 in Baking Powder, B. H. Harrison, Illinois.

9—A Method for Determining the Percent of Oil in Extract of Peppermint, G. H. Chittick, Iowa.

10—The Water Content of Oysters, F. L. Shannon, Michigan.

11—Round Table—Expert Testimony.

12—Election of Officers.

THURSDAY, JUNE 19.
9 A. M.

Meeting of General Association.

1—Collaboration Between the United States Department of Agriculture and State Officials—Its Meaning and Extent, Dr. Carl Alsberg Chief Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.

To open discussion, Hon. J. S. Abbott, Texas.

Followed by Hon. H. F. Potter, Connecticut.

2—The Fat Standard as a Substitute for the Water Standard for Butter, Dr. J. H. Frear, Chemist, Pennsylvania.

To open discussion, Hon. G. E. Patrick, Chief of Dairy Laboratory, Washington, D. C.

Followed by Hon. Joel G. Winkjer, Minnesota.

3—To What Extent Should the Functions of the State Departments Charged with the Enforcement of the Dairy, Food and Drug Laws Be Regarded as Educational? How May the Educational Function Be Best Performed? Dr. Lucius P. Brown, Tennessee.

To open discussion, Prof. Edwin DeBarr, Oklahoma.

Followed by Prof. R. E. Stallings, Georgia.

THURSDAY, JUNE 19.

1:45 P. M.

Meeting of General Association.

1—Editing Questions and Answers and Comments Thereon, Hon. James H. Wallis, Idaho.

Discussion by all Commissioners.

2—Should the Drug Stocks of Dispensing Physicians Be Inspected? If So, What Ways and Means Might Be Legally Adopted to Carry Out Such Inspection? Hon. Chas. Caspari, Jr., Maryland.

To open discussion, Dr. R. B. Fitz-Randolph, New Jersey.

Followed by Hon. Guy C. Frary, South Dakota.

3—Milk Supply of Cities and Towns, Hon. B. H. Rawl, Chief Dairy Division, Washington, D. C.

To open discussion, Hon. H. F. Potter, Connecticut.

Followed by Hon. John Newman, Ass't Comm'r, Illinois.

Meeting of General Association.

FRIDAY, JUNE 20.

9 A. M.

Meeting of General Association.

1—Net Weights and Measure Laws—and Should These Laws Be Enforced Through the Same Department Having Food and Drug Control Work or Through Some Other Agency? Hon. A. H. Jones, Illinois.

To open discussion, Hon. James Foust, Pennsylvania.

Followed by Hon. J. Q. Emery, Wisconsin.

2—What Should Be the Attitude of Food Officials, Chargeu with Such Duties, Towards the Supervision of Sanitary Conditions and of Food Served in Dining Cars, Restaurants, Hotels and Eleemosynary Institutions? Hon. Geo. L. Flanders, New York.

To open discussion, Hon. Chas. D. Woods, Maine.

Followed by Hon. James W. Helme, Michigan.

3—Sanitary Food Law—and the Use of the Score Card in Sanitary Inspection of Food Producing and Food Distributing Establishments, Hon. H. E. Barnard, Indiana.

To open discussion, Dr. G. B. Taylor, Louisiana.

Followed by Hon. Clarence E. Harman, Nebraska.

FRIDAY, JUNE 20.

1:45 P. M.

Meeting of General Association.

1—Is Legislative Enactment of Food Standards Advisable? Hon. Wm. C. Woodward, District of Columbia.

To open discussion, Dr. Sanford C. Dinsmore, Nevada.

Followed by Hon. Wm. D. Saunders, Virginia.

2—How Great a Variation from Fixed Standards of Food, Drug and Dairy Products, if Any, Should Be Allowed Without Condemnation? Dr M. E. Jaffa, California.

To open discussion, Hon. Chas. D. Woods, Maine.

Followed by Dr. H. E. Barnard, Indiana.

Report of Resolution Committee.

Election of Officers.

Miscellaneous Business.

Adjournment.

A RESUME OF WASHINGTON LEGISLATION.

The thirteenth legislative session of the state of Washington convened on January 13, 1913, and adjourned on March 13, 1913. Whether the date, the thirteenth, was a hoodoo or whether it was a continuation of the attitude assumed by the last two legislatures is unknown, but certain it is that, like its immediate predecessor, it was very chary in enacting constructive and progressive food, dairy and drug legislation.

A proposed act to prohibit the use of certain preservatives in fresh meats received scant consideration. The sanitary food bill was not even introduced although prepared for that purpose and advocated by the grocers' organizations of the state. After the time had expired for introducing bills without the consent of two-thirds of the members of either house an attempt was made to get permission to introduce a bill fixing condensed milk standards. This privilege was denied although many other bills were introduced.

Two bills were introduced before the House, No. 145 and No. 147, purporting to regulate cold storage. Before being acted on by the committee an attempt was made to consolidate them and incorporate the essential features of the proposed model bill as recommended by the American Association of Dairy, Food and Drug Officials. This was done in part but the bill as reported was of not much value so the matter finally died without being brought to a vote.

Rather a drastic weights and measure law was passed and, for some reason, was placed under the secretary of state to be enforced. The weights and measure law was advocated by the grocers. No attempt was made to enact labeling measures.

The most pronounced feature of the legislative work was the creation of a department of agriculture, providing for a commissioner of agriculture to execute the law and an advisory board of five members. The governor, commissioner of agriculture, director of the experiment station and two to be appointed by the governor shall constitute this board. The department is divided into four divisions as follows:

(a) Division of Dairy and Live Stock, which division shall include the work now covered by the state dairy commissioner, the state veterinarian, part of the duties now performed by the department of animal husbandry at the state college, etc.

(b Division of Horticulture, which is self explanatory.

(c) Division of Agriculture.

(d) Division of Foods, Feeds, Fertilizers, Drugs and Oils.

As will be seen from the above, this department will absorb all the duties now performed by the dairy and food commissioner. The commissioner of agriculture is to be appointed by the governor and serve for four years, or at the will of the governor. The chemist of the Washington agricultural experiment station and the dean of the College of Pharmacy of the University of Washington are made chemists for the new department, as they now are for the dairy and food department.

OUR FIRST "SPRING FRUIT."

Rhubarb is one of the first "harbingers of spring" in the culinary department and the housewife who fails to utilize it in a variety of ways is not making the best of her privileges. There are some conditions of the body, to be sure, in which it is wise to forego indulgence in rhubarb or its kindred, sorrel and tomatoes, all of which abound in oxalic acid. Persons suffering from acidity should eat of these products sparingly, if at all. For folk in general rhubarb offers a pleasing and excellent conserve for the table at a season when fruit acids of all sorts are particularly in demand.

Contrary to general opinion rhubarb, strictly speaking, is not a fruit at all, but a vegetable; and its introduction here, via Europe, came about through a "trick of the trade." In the 18th century the supply of rhubarb root, which was largely used in medicine, was all purchased of Tartar merchants, who controlled the trade. In vain did the medical men of Europe try to get from them some of the plants, that they might grow them at home. The Tartars promised well and brought one substitute after another, trying to palm them off in lieu of the real medicinal root. One of these spurious plants was our rhubarb. After French gardeners had experimented with it only to find its roots valueless, did some clever cook make the discovery that the leaves were edible and valuable, even if the root was not.

BAKED RHUBARB.

Wash thoroughly, cut in inch pieces without peeling, and place in a stone crock alowing half as much sugar as you have fruit. Arrange in layers but do not add any water. Cover the jar closely, stand in a pan of hot water and bake in the oven until the pieces are clear but not broken. The slow heat will cause the juices of the stalk to exude so that it cooks in its own juices. If the family like their rhubarb very sweet, more sugar may be used.

RHUBARB DESSERT.

Take two pounds of rhubarb cut into inch pieces, one lemon, one package of gelatine, two cups of sugar, one cup of cream, pistachio flavoring and one egg white. Place the rhubarb in a shallow baking dish and sprinkle one cup of sugar over it. Add the thin yellow rind of one lemon cut into strips. Place in a moderate oven and bake until tender. Remove from the oven and add one tablespoon of granulated gelatine dissolved in a little water. Make one quart of plain jelly and sweeten it with the remaining sugar. Take one cup of it and flavor with pistachio flavor. Coat a fancy mold with this dipping it until the coating is half an inch thick. Beat the remaining jelly until white. Whip the cream stiff and also the egg white. Combine these with the whipped jelly and fill the prepared mold two-thirds full. Fill the remaining space with the rhubarb mixture and set on ice to harden. Serve with a thin boiled custard.

DIGESTION OF FOOD IN HEALTH AND DISEASE.

Louis J. Tint, M. D.

[NOTE.—This is the third installment of a treatise by Dr. Louis J. Tint, bacteriologist to the Illinois State Food Commission, on the "Digestion of Food in Health and Disease." Among the important subjects that Dr. Tint will write upon in the course of this series of articles will be the digestion of food products by healthy and sick people, the influence of predigested food, the effect on digestion of food products containing saccharine, the effect of food products containing boric acid, etc.—Editor.]

INTRODUCTION.—Continued.

The life of the individual as well as the race depends upon its food supply. Through centuries of continual effort, the human race has succeeded in raising and providing enough food for its inhabitants. The more known our knowledge becomes, relating to the care in selecting seed, the methods of raising alternating crops, the more surplus will be the yield of food products. However, as much as human genius has thus far succeeded in devising means and methods to safeguard and protect our plants and animals against undesirable pests, we are far from being masters of the situation. There are even at the present time many destructive parasitic elements to our plant life which in certain favorable seasons cause great loss to crops. Not infrequently, half of the crop is destroyed; large tracts of cultivated land when once infested with a particular parasite will annually keep up its destructive nature in that field.

IF VEGETABLES WERE ALLOWED TO RUN WILD.

If the animals or plants that are now domesticated were allowed to run wild, the struggle for their life would become more active. The problem of food, protection against natural enemies, and the ever present destructive elements in nature would all begin to come into play; each exercising their particular effort to deprive such animals and plants of their existence.

The reduction of food supply would first eliminate the weaker members, the stronger would still keep up until their food is exhausted, gradually starvation and death would eliminate them also. The carniverous animals are constantly in search for food and are preying upon their less protected neighbors. The herbivorous animals depend upon vegetables for their life and among the plants themselves there is a continual competition for food and space.

In olden times there were primeval forests composed of firs, oaks, birch, etc. Then the beech tree made its appearance. Wherever there was favorable soil, the beech rapidly drove out the other trees. Where the birch flourished before in large forest districts, it was gradually compelled to yield to its more powerful competitor, the beech. The former was driven out to the sandy and sterile soil.

The same thing goes on with every wild plant or animal from the lowest to the highest. Certain species breed at such a rate that if allowed to go unchecked would soon monopolize the land. But they are kept down by destructive agencies so that their number can never permanently increase except at the expense of some others which in time must proportionately decrease.

This universal struggle for existence which is so important for the survival of the fittest is continually going on among the living beings. Yet to most people everything is quiet and peaceful. All they see is that the birds are singing and the plants blossom and bear fruit for their need and pleasure.

If our present domesticated vegetation and animals (used as food) were allowed to assume their natural existence, which one would be the first to yield and be destroyed? From history, it is known that cattle and horses allowed to run wild would gather in herds By this union they are not only able to multiply but defend themselves against their enemies the large carniverous animals.

Among the smaller animals there is a tendency to be able to imitate their surroundings. In this way they frequently escape their enemies. In the vegetable kingdom, such protective means do not exist. The plants that seem to survive are either poisonous or non-palatable, as prickly weeds, thistles, etc. Vegetables are not only destroyed by animals, that occasionally dig them out root and all, but the forces of nature act at times as a more dreaded enemy.

DO POTATOES GROW WILD?

All domesticated plants may grow from seed and at the start be vigorous and healthy. But if left alone for a number of years, one set will succeed another and the one that is more capable to resist its unfavorable conditions will drive out the rest; the latter will in turn be driven out. After the lapse of years there will hardly be preserved any of the original plants.

Of our common vegetables that are propagated by seeds, hardly any of them run wild. The potato, beet, etc., which are so widely cultivated and so well adapted to spread by means of tubers, have not succeeded in growing wild.

A certain amount of draught, heat or cold will be endured by many species of plants, but an excess will kill them. During the growing season each plant requires a certain amount of moisture, light or sunshine, and particular salts that are present in the soil. The failure to obtain the above, causes weakness and may lead to a gradual death. Should the above plants be able to secure all they need, they are still further exposed to the action of destructive parasites.

DISEASES IN ANIMALS AND PLANTS.

Animals as well as plants suffer from various diseases. At times the loss is enormous, and of great economic importance. In animals, the disease attacks the skin, and the hide, thus damaged, cannot be used for tanning purposes. When the organs of the body are diseased, not infrequently, the entire carcass becomes unfit for food. Sometimes the disease is of such a nature that the animal could not even be utilized for rendering purposes and must be burned.

Plants are affected similarly. When the skin is affected by certain fungous parasites, it causes either spots, discolorations or distortions, which makes the particular fruit or vegetable unfit for market purposes. Seedlings may be attacked when they first appear above ground, and wilt before reaching maturity.

Sometimes the invading parasites enter the water-carrying system which corresponds to the circulation of blood in animals. This plant will either wilt or rot. Tuberous vegetables, when affected, become unfit for food purposes. So we see that if it were not for the great care given to the plants, by supplying them with the proper fertilizing material, protecting them as much as possible from fungous diseases and other destructive elements, such plants would long since have ceased to exist.

(To Be Continued.)

STATUS OF PENNSYLVANIA LEGISLATION.

Harrisburg, April 29.—The Senate today passed finally the bill to regulate cold storage, the measure being a composite of all bills on the subject and favored by the state administration. The bill was much amended in the Senate and goes back to the House for concurrence.

The pure food bill which prohibits the use of benzoate of soda is pending on third reading in the Senate today. The non-alcoholic drink bill, amended to contain exemption of dealers, wholesale and retail, who sell on an out of the state guarantee, is also pending. Both will be acted upon within twenty-four hours.

The bill prohibiting misbranding of alcoholic liquors was passed on second reading in the Senate today. The last three bills are Senate measures and must go to the House. The plan is to pass them.

The House has sent the resolution for an investigation of cold storage to a committee.

NATIONAL RETAIL GROCERS TO MEET.

The annual convention of the National Retail Grocers' Association is scheduled to meet at St. Louis, Mo., May 19 to 22. This is always an important meeting to food interests, as the retail grocers are the country's food distributors into consumers' hands. It is expected that Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, Washington, D. C., will be present and be the chief speaker.

STATEMENT OF OWNERSHIP.

Statement of the ownership, management, etc. of AMERICAN FOOD JOURNAL, published the 1st day of each month at Chicago, Illinois, required by Act of August 24, 1912.

Editor, H. B. Meyers, 15 South Market street, Chicago, Ill.

Managing Editor, H. B. Meyers, 15 South Market street, Chicago, Ill.

Business Manager, H. B. Meyers, 15 South Market street, Chicago, Ill.

Publisher, The American Food Journal (inc.), 15 South Market street, Chicago, Ill.

Owners: (If a corporation, give names and addresses of stockholders holding 1 per cent or more of total amount of stock.)

H. B. Meyers, President and Secretary, 15 South Market street, Chicago, Ill.

Frances E. Meyers, Treasurer, 15 South Market street, Chicago, Ill.

ers, holding 1 per cent or more of total amount of bonds,

Known bondholders, mortgagees, and other security hold-

Dr. John Dill Robertson, 1422 W. Jackson boulevard, Chicago, Ill.

mortgages, or other securities: None.

HERMAN B. MEYERS.

Sworn to and subscribed before me this 25th day of March, 1913. ROBERT F. WINGARD.

(My commission expires June 15, 1915.)



MOVING DAY.

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the first of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

United States.

HOUSE BILL NO. 1683.

By Mr. Steenerson.

A bill for preventing the manufacture, sale or transportation of imitated or misbranded articles of commerce, and regulating the traffic therein.

Referred to Committee on Interstate and Foreign Commerce and ordered to be printed.

HOUSE BILL NO. 2970.

By Mr. Campbell.

A bill prohibiting fraud upon the public by requiring manufacturers to certify to the materials of which a manufactured product is composed, and to place their name upon manufactured articles of containers.

Referred to Committee on Interstate and Foreign Commerce and ordered to be printed.

California.

SENATE BILL NO. 375.

By Mr. Juilliard, January 17, 1913.

Referred to Committee on Judiciary.

And

ASSEMBLY BILL NO. 477.

By Mr. Bowman, January 20, 1913.

Referred to Committee on Manufactures.

An act to regulate the sale of packages, cartons, cans, boxes, commodities and containers of all kinds, with the name and address of the original manufacturer thereof, providing for the enforcement of and penalties for the violation of the provisions of this act.

Passed house as amended and sent to Senate Judiciary Committee.

SENATE BILL NO. 788.

By Senator Boynton.

Same as Assembly Bill No. 966.

An act to provide for the indicating of the net quantity of food stuffs and stuffs intended to be used or prepared for use as food for human beings when sold or offered or exposed for sale in containers and providing penalties for violation thereof.

Referred to Committee of Judiciary.

Amended and recommended for passage.

SENATE BILL NO. 1247.

By Senator Birdsall.

An act to amend an act entitled "An act for preventing, etc." Section 27 provides: "No person shall sell or offer for sale food in package form unless the quantity of the contents be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

Referred to Committee on Public Health and Quarantine.

SENATE BILL NO. 1288.

By Senator Boynton.

An act to amend section 6 of an act entitled "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," in reference to placing the true name of manufacturer, jobber or seller on label.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 9.

By Mr. Canepa, January 13, 1913.

An act to regulate the receiving and keeping of food in cold storage and regulating the sale of said food and providing a penalty for the infringement and violation of said act.

Transferred to Committee on Public Health and Quarantine.

Recommended for passage and ordered to third reading.

ASSEMBLY BILL NO. 221.

By Mr. Schmitt, January 14, 1913.

To amend sections 9 and 16 of an act entitled "an act for preventing the manufacture, sale or transportation of adulterated, mislabeled, or misbranded foods and liquors, etc.," approved March 11, 1907.

Referred to Committee on Public Health and Quarantine.

Transferred to Committee on Ways and Means.

ASSEMBLY BILL NO. 1252.

By Mr. Roberts.

An act prohibiting the destruction of foodstuffs, food products or food articles.

Referred to Committee on Judiciary.

ASSEMBLY BILL NO. 1318.

By Mr. Bradford.

An act to amend the food law approved March 11, 1907, by adding section 27, which provides:

"No person shall sell or offer for sale food in package form unless the quantity of the contents is plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

Referred to Committee on Manufactures.

Amended and recommended to pass.

ASSEMBLY BILL NO. 1319.

By Mr. Bradford.

An act amending section 6 of the act approved March 11, 1907, entitled, "An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors, etc.," and further defining mislabeling and misbranding.

Referred to Committee on Manufactures.

ASSEMBLY BILL NO. 1796.

By Mr. Inman (by request).

An act to amend section 3 of the food law approved March 11, 1907, so as to provide a standard for ice cream, fruit ice cream and nut ice cream.

Referred to Committee on Public Health and Quarantine.

Colorado.

Legislature has adjourned. Senate Bill No. 210 to prevent the preparation, manufacture, packing, storing or distributing of food intended for sale, or sale of food under insanitary, unhealthful or unclean conditions or surroundings, to create a sanitary inspection, to declare that such conditions shall constitute a nuisance. Also House Bill No. 220, which is an act creating the office of State Dairy Commissioner of the state of Colorado, defining the duties thereof, providing for means of fostering the dairy industry, regulating the production, sale and shipment of dairy products and oleomargarine, and providing for the licensing of shippers of these. This bill would make the head of the Department of Animal Husbandry also the State Dairy Commissioner.

These laws will be published in a subsequent issue of THE AMERICAN FOOD JOURNAL.

Connecticut.

HOUSE BILL NO. 937.

An act amending the act concerning the sale of food in package form and providing that no penalty shall be enforced under said act until the passage of a similar act by Congress.

Referred to Committee on Judiciary.

Florida.

SENATE BILL NO. 39.

A general food law, embracing a net weight labeling clause, which provides for reasonable variations.

Referred to Committee on Judiciary.

House Bill No. 159 is an identical bill, and has been recommended for passage.

Illinois.

SENATE BILL NO. 284.

By Mr. Maclean. March 20, 1913.

A bill for an act to amend sections 1, 8, 9, 10 and 21 of an Act entitled, "An act to prevent fraud in the sale of dairy products, their imitation or substitutes, to prohibit and prevent the manufacture and sale of unhealthful, adulterated or misbranded food, liquors or dairy products, to provide for the appointment of a State Food Commissioner and his assistants, to define their powers and duties and to repeal all Acts relating to the production, manufacture and sale of dairy and food products and liquors in conflict herewith," approved May 14, 1907, and in force July 1, 1907, as amended by subsequent Acts, and to repeal section 17 of said Act.

This bill contains a net weight clause requiring labeling of packages with net weight of contents, and providing for reasonable tolerances.

Referred to Committee on Live Stock and Dairying.

Amended to comply with national food law in weight, labeling clause and also to permit the use of saccharin in accordance with the national standards.

On second reading.

House Bill No. 284 by Mr. Watson is identical to above. It is now in Committee on Live Stock and Dairying.

Iowa.

Legislature has adjourned. A net weight labeling law providing for reasonable variations and tolerance was enacted; also a cold storage law.

Maine.

Legislature has adjourned without passing any laws of importance to food interests.

Massachusetts.

SENATE BILL NO. 118.

An act relative to the manufacture, sale or exchange of confectionery deleterious to the public health.

Enacted into law.

SENATE BILL NO. 119.

An act relative to the sale of insecticides.

Amended to be passed and engrossed.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

Referred to Committee on Public Health.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

Referred to Committee on Public Health.

Leave to withdraw asked.

HOUSE BILL NO. 775.

An act relative to the sale of commodities by weight.

Passed to be enacted.

Signed by Governor. This law will be published in a subsequent issue of THE AMERICAN FOOD JOURNAL.

HOUSE BILL NO. 1160.

An act to regulate the manufacture and sale of fruit syrups.

Referred to Committee on Public Health.

Leave to withdraw asked.

HOUSE BILL NO. 1162.

An act relative to false stamping and labeling of receptacles containing articles of food.

Referred to Committee on Public Health.

Amended and engrossed.

Passed both house and senate. Was amended in the house and is now in conference committee.

HOUSE BILL NO. 1165.

An act to prohibit the adulteration of candy. This act amends section 6, chapter 213 of the Revised Laws so as to read as follows:

"Whoever, himself, or by his agent or servant, or as the agent or servant of another person, manufactures, sells or exchanges, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, any toys or confectionery, containing or coated wholly or in part with arsenic, talc, saccharin, glucose, ethereal flavors (unless declared to purchaser), iron rust, burnt umber, mineral in any form, fat substitutes for chocolates, wood or denatured alcohol, benzoate of soda, salicylic acid, boric acid or glue, shall be punished by a fine of not less than fifty nor more than one hundred dollars."

Referred to Committee on Public Health.

Michigan.

Legislature has adjourned. There was enacted into law Senate Bill No. 286 providing for amendments to certain sections of the act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink. The amendments make it mandatory to label packages with the net weight or measure, or numerical count, as the case may be. However, reasonable variations and tolerances shall be permitted, as established and promulgated by the Dairy and Food Commissioner. It is also made compulsory that "Every article of food as defined in the statutes of this state shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, except where the parties otherwise agree, and shall be labeled in accordance with the provisions of the food and beverage laws of this state."

Senate Bill No. 326, which defines and fixes the standard of purity for foods, beverages, condiments, confectionery and drugs in this state in prosecution arising under the food, beverage and drug laws of the state of Michigan, was also placed on the statute books.

House Bill No. 547 relative to the manufacture, sale and branding of cheese was enacted into law. These laws will be published in subsequent issues of THE AMERICAN FOOD JOURNAL.

Minnesota.

SENATE BILL NO. 4.

By Mr. Fosseen.

A bill for an act to prevent deception in the sale of cold storage products, and fixing the punishment for violation thereof. The bill covers fish, oysters, poultry, eggs and butter.

Referred to Committee on Public Health

SENATE BILL NO. 732.

By Mr. Sullivan.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight, the net measure or numerical count, of the contents thereof.

Referred to Committee on Commerce and Trade.

Returned to author.

SENATE BILL NO. 800.

By V. Johnson and Mr. Foseen.

A bill to regulate the weighing, measuring and sale of commodities, providing that all butter, meat and meat products shall be sold by net weight.

Referred to Committee on Commerce and Trade.

Recommended for passage and placed on general orders.

SENATE BILL NO. 817.

Mr. G. H. Sullivan.

A bill for an act to require the marking of the net weight, measure or numerical count on the outside of packages of food offered for sale in package form. Reasonable variations are provided for.

Referred to Committee on General Legislature.

Reported to pass.

On senate general orders March 28. Amended.

HOUSE BILL NO. 128.

A bill for an act to amend section 1774, revised laws of Minnesota, 1905, so as to prohibit the misbranding of beverages.

Passed both branches of legislature.

Enacted into law. Will be published in full in a subsequent issue of THE AMERICAN FOOD JOURNAL.

HOUSE BILL NO. 191.

By Mr. Conley.

An act making it a misdemeanor to sell goods with a false stamp.

Referred to Committee on Commerce and Trade.

Passed the House and is in the Senate.

HOUSE BILL NO. 319.

By Mr. Dunn.

A bill for an act to provide for the marking and labeling of food containers packed or sold for use in Minnesota so as to show the net weight or the net measure of the contents thereof, and to provide penalties and punishment for violations of this act.

Transferred to Committee on Public Health and Pure Foods.

Indefinitely postponed.

HOUSE BILL NO. 855.

A bill for an act to prohibit the sale and use of canning compounds or chemical preservatives designed and advertised to be used in canning and preserving fresh fruits and vegetables, and to preserve the public health.

Referred to Committee on Public Health.

Senate Bill No. 685 is same as above.

HOUSE BILL NO. 894.

By Mr. Sanborn.

An act to amend the laws so as to prohibit "the use of any dye, harmless or otherwise, to color or stain a food in a manner whereby damage or inferiority is concealed" and listing such mineral dyes or coal-tar dyes as are permitted. When a permitted color is used its presence must be declared on the label.

Referred to Committee on Public Health and Pure Food.

Indefinitely postponed.

HOUSE BILL NO. 959.

By Mr. Larson.

A bill for an act entitled "An act to amend chapter 50 of the revised laws of Minnesota for 1905, relating to weights and measures."

Referred to Committee on Commerce and Retail.

HOUSE BILL NO. 1009.

By Messrs. Larson and Swenson.

A bill for an act entitled, "An act to regulate the weighing, measuring and sale of commodities."

Recommended to pass.

HOUSE BILL NO. 1049.

By Mr. Westlake.

A bill to require marking with net weight, measure or numerical count on food packages. Provides for reasonable variations.

Referred to Committee on Commerce and Retail Trade.

Recommended to pass.

HOUSE BILL NO. 1187.

By Committee on Commerce and Retail.

A bill for an act relating to weights and measures, and defining standards for measures of various commodities.

Nebraska.

SENATE BILL NO. 72.

By Mr. Haarmann, January 17, 1913.

A bill for an act to repeal chapter 4, Session Laws of 1897, being sections 9859, 9860, 9861, 9862, 9863, 9864 and 9865 of Cobey's Annotated Statutes for 1911, regulating the manufacture and sale of vinegars.

Referred to Committee on Manufacturing and Commerce.

Indefinitely postponed.

SENATE BILL NO. 155.

By Mr. Hoasty.

An act making it unlawful for any person, firm, company or corporation to print, emboss or stencil or in any way to place the name of any other than his or their own name on such article as is manufactured by such person, firm or company or corporation any other name or title whether real or fictitious, placed upon any article manufactured than that of the person, firm, company or corporation so manufacturing.

Indefinitely postponed.

SENATE BILL NO. 239.

By Mr. Haarmann.

A bill for an act to provide for the manufacture, sale and branding of vinegar.

Passed the senate.

Placed on house general file.

HOUSE BILL NO. 377.

By Mr. Frank C. Yates.

A bill to amend section 9825 of Colby's annotated statutes of the state of Nebraska for 1911, relating to misbranding of drugs.

Referred to Committee on Retail and Commerce.

Placed on general file.

Amended and has passed both house and senate.

HOUSE BILL NO. 384.

By Mr. Druesedow et al.

An act to make it unlawful "for any person, firm, association, corporation or co-partnership to store butter, eggs or other perishable food stuffs for a longer period than 90 days. Such food stuffs when so stored shall have thereon a plain, white wrapper with red letters and figures printed in clear, legible type, showing the date on which such food stuff was stored.

Referred to Committee on Manufactures and Commerce.

HOUSE BILL NO. 697.

By Representative Anderson.

Section 1 of this bill reads:

"It is hereby declared unlawful to sell or offer for sale any patent medicine, drug, stock food or stock medicine, or human food preparation on the container of which is printed, stamped or written any false or fraudulent or misleading statement as to the curative value of any such patent medicine or drug or stock food or stock medicine, or the food value of any human food product or preparation; or as to which any such false or fraudulent or misleading claims have been made by means of printed circulars or other printed matter or by advertising the same in any newspaper."

Referred to Committee on Medical Societies.

HOUSE BILL NO. 826.

By F. L. Bollen.

An act to create and maintain a food, drug, dairy and oil commission for the state of Nebraska, to define its powers and duties, to provide for the inspection of foods, drugs, dairy products and oils, etc.

Referred to Committee on Judiciary.

Amended and recommended to pass.

Killed, and Senate Bill No. 452, identical to above, was enacted into law.

New Hampshire.

HOUSE BILL NO. 167.

By Mr. Brennan.

An act establishing a standard of weights and measures.

Referred to Committee on Judiciary.

New Jersey.

Legislature has adjourned. No measures of importance to food interests were passed.

New York.

HOUSE BILL NO. 451.

By Mr. Willmott, January 22, 1913.

An act to amend the general business law in relation to the marking of canned goods and providing for placing on label date when packed.

Referred to General Laws Committee.

Ohio.

HOUSE BILL NO. 53.

By Mr. King.

A bill to amend section 7965 of the General Code, relating to the duties of the State Sealer of Weights and Measures.

Passed the house.

Enacted into law without amendment and will be published in full in a subsequent issue of THE AMERICAN FOOD JOURNAL.

Enacted into law.

HOUSE BILL NO. 54.

By Mr. King.

A bill to amend section 6418-1 of the General Code, relating to articles sold by avoirdupois weight or numerical count.
Passed both Houses.
Enacted into law.

HOUSE BILL NO. 210.

A bill to amend section 375 of the General Code, relating to the duties of the State Dairy and Food .Commissioner. .
Passed the house.
In senate Committee on Agriculture.
Passed Senate without amendment.
Enacted into law.

HOUSE BILL NO. 418.

By Mr. Woodworth.

A bill relating to food, drink and flavoring extracts and labeling of same.
Referred to Committee on Dairy and Foods.
Recommended as amended.

HOUSE BILL NO. 450.

By Mr. Thomas.

An act to amend section 13423 of the General Code relative to special jurisdiction of jurists, police judges and mayors by adding a sub-section 14 as follows: "The prevention of short weights and measures and all violations of the weights and measures law."
In committee.

Pennsylvania.

SENATE BILL NO. 5.

By Mr. Gerberich.

An act relating to food, providing for the protection of the public health, and the prevention of fraud and deception, by prohibiting the manufacture or sale, the offering for sale or exposing for sale, or the having in possession with intent to sell, of adulterated, misbranded or deleterious foods, and of foods short in weight or measure.
Referred to Committee on Public Health and Sanitation.
Reported favorable with amendment prohibiting use of any benzoate of soda and permitting half the amount of sulphur dioxide now allowed by law.
On third reading in Senate.

SENATE BILL NO. 6.

An act for the protection of the public health by providing for the regulation and control of the sanitary conditions surrounding the preparation, handling, storage and serving of foods in hotels, restaurants and dining cars; defining hotels, restaurants and dining cars; imposing certain duties upon the dairy and food commissioner in reference to this act; and providing penalties for violation of same.
Referred to Committee on Public Health.

SENATE BILL NO. 7.

An act relating to non-alcoholic drinks, defining same and prohibiting the manufacture, sale, offering for sale, exposing for sale, or having in possession with intent to sell, of any adulterated or misbranded non-alcoholic drinks.
Referred to Committee on Public Health and Sanitation.
Amended and pending in Senate.

SENATE BILL NO. 8.

An act for the protection of the public health and the prevention of fraud and deception in the manufacture, labeling or sale of milk products; defining such milk products, fixing the standard thereof, and providing penalties for the violation of the provisions of the act.
Referred to Committee on Public Health.

SENATE BILL NO. 9.

An act for the protection of the public health and the prevention of fraud and deception, by regulating the sale of cold storage poultry, game, eggs and fish, providing penalties for the violation thereof, and providing for the enforcement thereof.
In Committee on Public Health.

SENATE BILL NO. 10.

By Mr. Gerberich.

An act to amend an act approved May 11, 1911, entitled, "an act to provide for appointment of county and city inspectors of weights and measures, providing for their compensation and expenses, prescribing their duties, prohibiting vendors from giving false or insufficient weights and fixing the penalties for violation of the provisions thereof," by regulating the appointment and compensation of the inspectors, extending their powers and duties and changing the penalties for violation of said act.
Referred to Committee on Judiciary General.
Passed the senate.

SENATE BILL NO. 11.

By Mr. Gerberich.

A bill defining commodities and regulating sale thereof.
Referred to Committee on Public Health and Sanitation.
Reported favorably March 28.
Amended and passed first reading, then recommitted.

SENATE BILL NO. 12.

An act supplementary to an act entitled "An act for the protection of the public health, by prohibiting the sale, offering for sale, exposing for sale, or having in possession with intent to sell, of eggs unfit for food as therein defined, and prohibiting the use of such eggs in the preparation of food products; providing penalties for the violation thereof, and providing for the enforcement thereof," approved March 11, 1909, providing for the denaturing by kerosene of all eggs unfit for food, within the meaning of said act, and providing penalties for the violation thereof.
Passed senate and second reading in house.
Placed on postponed calendar.
Enacted into law.

SENATE BILL NO. 280.

By Mr. Gerberich, February 17.

An act for the protection of the public health and providing that hotels, restaurants, and other public eating places shall not employ helpers having communicable diseases, and further stipulates to what use utensils in the kitchen and dining room shall be put.
Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 746.

By Mr. Snyder.

An act prescribing the manner in which articles of commerce shall be sold, prohibiting the giving of short weights and measures, defining same and fixing penalties for violating thereof.
Referred to Committee on Judiciary.

HOUSE BILL NO. 53.

By Mr. Gans, January 21.

An act regulating the sale of certain food that shall have been kept in cold storage.
Referred to Committee on Public Health and Sanitation.
Postponed on third reading.
Passed the House.
Amended by Senate and passed. Returned to House for concurrence.

HOUSE BILL NO. 667.

By Mr. G. K. Young, February 13.

An act to amend the act approved May 29, 1901, entitled "An act to prohibit the manufacture and sale of oleomargarine, butterine and other similar products when colored in imitation of yellow butter, to provide for license fees of manufacturers and sellers, and to regulate the sale and manufacture of these products when not colored in imitation of yellow butter.
Referred to Committee on Public Health and Sanitation.

HOUSE BILL NO. 1683.

An act to regulate the taking of samples of foodstuffs by the dairy and food commissioner and any board of health officer, or any agent or employe therefor from any producer or vendor for the purpose of analysis.
Passed by house and in senate committee.

Rhode Island.

HOUSE BILL NO. 24.

By Representative Baldwin, January 14, 1913.

An act regulating the sale of food products.
Ordered to table until appointment of committees.
Referred to Committee on Judiciary.
Substitute A recommended.

HOUSE BILL NO. 117.

By John H. Richards.

An act amending section 6 of chapter 183 of the general laws so as to read:
Section 6. A drug or an article of food, or an article which

enters into the composition of food, shall be deemed to be misbranded:

First. If the package containing it, or the label on such package shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, or if the same is falsely branded as to the state, territory, or country in which it is manufactured or produced, or if such article is preserved or packed in tin can, glass or earthen jar or vessel has not thereon plainly stamped or marked the day, month and year when such article was placed therein, or where said tin can, glass or earthen jar or vessel is relabeled or recovered and the label or cover thereof shall fail to have a statement of said relabeling or recovering and the date when such article was placed therein.

Referred to Committee on Judiciary.

Tennessee.

SENATE BILL NO. 152.

An act to prevent frauds in the measure or measurement of articles sold in Tennessee.

Referred to committee.

On third reading.

SENATE BILL NO. 404.

By Senator Tompkins.

A bill creating a market commission, prohibiting monopoly and unfair trade, promoting co-operative enterprises, and making an appropriation therefor.

Referred to Committee on Finance.

SENATE BILL NO. 530.

By Mr. Crawford, February 21, 1913.

An act to amend sub-section 3 of section 4 of chapter 297 of the acts of 1907, relating to food, to read as follows:

"If in package form, the quantity of the contents be not conspicuously, plainly and correctly marked on the outside of the package in terms of weight, measure or numerical count provided, that reasonable variations shall be established by rules and regulations to be promulgated by the State Pure Food and Drugs Inspector; and provided, further, that said variations shall be made uniform with similar variations established by the United States Department of Agriculture whenever said department shall establish same."

Referred to committee.

On second reading.

HOUSE BILL NO. 995.

By Mr. Stone of Lincoln.

An act to prevent fraudulent practices in the buying and selling of articles enumerated in chapter 20, Acts 1887, and chapter 143, Acts of 1895, providing that such articles shall be sold by weight only and never by measure.

HOUSE BILL NO. 1176.

By Messrs. Fuller and Link.

A measure which requires labeling net weight on food packages, in conformity with regulations, tolerances and exemptions as provided by national regulation.

Texas.

Legislature has adjourned and no laws of importance to food interests were passed.

Wisconsin.

HOUSE BILL NO. 306.

By Mr. Hull.

A bill to direct the industrial commission to establish a system of direct marketing, and making an appropriation.

Referred to Committee on Agriculture.

Recommended and referred to Committee on third reading.

Sent to Committee on Finance.

HOUSE BILL NO. 393.

By Mr. Axel Johnson, February 13.

A bill to amend section 1665 of the statutes, relating to dry commodity standards.

Referred to Committee on Public Welfare.

Indefinitely postponed.

HOUSE BILL NO. 627.

By Mr. Rosa.

To amend Section 1791n-1 and 1791n-4 of the statutes, relating to the restraint of trade in dairy products; to amend subsection 3 of Section 1494aa and Section 1494ac of the statutes, relating to the Babcock milk and cream test; to amend Section 4601a of the statutes, relating to canned goods; to amend subdivision (12) of Section 4601-4a of the statutes, relating to rice, and providing a penalty.

Referred to Committee on Public Welfare.

Amended and on third reading.

HOUSE BILL NO. 668.

By Mr. Hedding.

A bill to confer upon cities of the first class certain powers in relation to the regulation of weights and measures.

Referred to Committee on Public Welfare.

Passed house, and killed in senate.

HOUSE BILL NO. 754.

An act to amend section 4601-1a of the statutes, relating to the sale of syrups, molasses, glucose mixtures, and maple syrup mixtures.

Referred to Committee on Public Welfare.

HOUSE BILL NO. 758.

By Mr. Hurlbut.

An act to amend section 4601aa of the statutes, relating to the branding of foods. This bill requires the net weight or numerical count of contents to be placed on package goods, also the name and address of manufacturer, packer or dealer. Reasonable variations are provided for in stating contents.

Referred to Committee on Public Welfare.

Amended and passed the house.

HOUSE BILL NO. 948.

By Mr. Hedding.

A bill to create sections 4601am to 4601as, inclusive, relating to the use, care and disposition of vials, cans, bottles and other receptacles for food products, including beverages and drugs.

Referred to Committee on Public Welfare.

Indefinitely postponed.

HOUSE BILL NO. 1086.

By Mr. Mahon.

A bill to create a market commission, prohibiting monopoly and unfair trade, promoting co-operative enterprises and making an appropriation therefor.

Referred to Committee on State Affairs.

CORRECTION.

Several errors were made in our final report on the status of the various bills introduced into the Idaho legislature, at the time of the adjournment, and we wish to correct the record here. The following bills, which we reported in our March issue as having died in committee or killed, were enacted into law; Senate Bill No. 66, Senate Bill No. 78, Senate Bill No. 126 and House Bill No. 257.

GREEN TURTLES IN LOWER CALIFORNIA.

The green turtle is found most extensively all along the coast of Magdalena Bay, Lower California. The natives in a great many localities subsist almost entirely on its meat. At the place named a firm once purchased these turtles for 50 cents and sold them in the market of San Francisco for $5, but it is doubtful if they could be obtained at such prices now. At Magdalena a company has a concession to fish turtle in that locality, being managed by Japanese, and it is supposed owned by Japanese also.

On the Gulf of California turtle are also found to some extent, as well as at San Lucas, a point between Santa Rosalia and Mulege, Lower California. It is said these turtles weigh 150 pounds.

Announcement is made from Washington that Commissioner of Internal Revenue Cabell has made a decision waving the tax on oleomargarine when it is bought by the government. He also ruled that such oleomargarine could be packed in tins or any other container. The law requires that oleomargarine be sold in wooden packages, but the Department of Justice decided that this restriction applied only when sold tax paid. The question arose over the recent action of the Navy Department in advertising for bids for oleomargarine in tins for the first time. The packages are necessary to the navy in order to preserve the food.

ILLINOIS ICE CREAM STANDARD PROMULGATED.

ILLINOIS State Food Commission, Bulletin No. 25, issued under date of April 25, promulgates the Ice Cream Standard for the state, and reads as follows:

The Illinois Food Standard Commission, at the request of Alfred H. Jones, Food Commissioner, have made a very exhaustive study of the conditions surrounding the manufacture and sale of ice cream. This has been done with a view of formulating a standard for ice cream.

The purpose of a standard for ice cream or any other article of food is that there may be a correct guide for the public, for manufacturers and for officials as to what, in contemplation of food laws, is a *normal* article.

The first question for the commission to determine was whether or not the item "Ice Cream" should be given literal interpretation or whether it has, through custom and usage, attained special significance, and, if so, to determine the limits and boundary lines of such term. It has been the contention of many, and particularly manufacturers of ice cream, that it is not possible to correctly define what is ice cream, their argument being very largely based upon the fact that there are and have been such a great variety of substances used in the production of so-called "Ice Cream," that definition limiting substances would be invalid.

To accept that view would open the door to the use of many substances as substitutes for articles that we believe are essential ingredients in "Ice Cream."

For instance, the National Organization of Ice Cream Manufacturers passed resolutions at their convention at Buffalo, N. Y., August, 1912, in effect that there is no warrant in the custom and usage of the trade, or among those who make ice cream in their own homes, to give the name "Ice Cream" to any product containing mixtures or compounds of milk, or skim milk and foreign fats or oils. If their position is correct, and we believe it to be, it is manifestly apparent that the term "Ice Cream" has special significance and therefore is subject to being defined or standardized.

Many public sessions have been held by the commission which have been well attended, especially by manufacturers and officers of their state and national organizations. Their statements are corroborative of the above and are also to the effect that there are several ingredients which are deemed to be essential in the making of ice cream, and which essential ingredients appear in all recipes and documentary evidence consulted in this connection; they are, cream, or cream and milk, and sugar.

The testimony is substantially unanimous that substitutes for these articles should not be permitted.

There are many substances when used in connection with the above mentioned articles in the making of ice cream, would seem to be legitimate, such as eggs, flour, starches, butter, flavorings, nuts, fruits and pastries.

Great care has been exercised to collect data bearing on the origin of ice cream, and the usages and customs surrounding its growth as an article of commerce. Libraries have been searched, a thousand or more communications sent to individuals, and more than 600 recipes examined, and substances shown therein tabulated.

The question of the use of gelatin in making ice cream was given much consideration by the commission and from the evidence submitted it was apparent, that its limited use should be permitted. It seems to perform a useful function in that it imparts a smoothness and character that would not otherwise be obtained; assuming that the other conditions of the standard are observed. Contrary to the impression many have, it is not then used as a cheapener and cannot successfully be so used; the presence of a large quantity would impart a disagreeable taste and it would not be an economy for manufacturers to use in quantities. If used under proper conditions of manufacture, it is harmless and custom seems to sanction its use.

The use of condensed milk as a substitution for fresh milk was given due consideration by the commission and its use in the manufacture of ice cream is sanctioned by usage and custom, and in certain seasons of the year when it is difficult to maintain fresh milk in proper condition, its use seems almost essential to the production of wholesale ice cream.

The standard as formulated and given below under the rules adopted by the commission, wil lexclude the use of materials not specifically mentioned in the standard and foot note, as the definition was framed with the view of excluding ice cream, substances which are used as substitutes for milk or butter fat, namely, so-called oleo fats, process butter, renovated butter, packing stock or "Ladels," their use not being sanctioned by trade custom or usage. If used their presence must be properly displayed by label, showing the variation from ice cream as hereinafter defined. This is true of any other substance used and not shown in the standard hereinafter defined.

The question of fixing the minimum amount of butter fat permissible in ice cream was given great consideration by the commission and the evidence of many taken on the subject.

We find from an examination of samples on the market, and from all of the evidence before us, which is too voluminous to set out in this statement, that to place before the public for sale an article containing less than 8 per cent butter fat would be tantamount to delivering less than 16 ounces for a pound.

The first consideration in formulating an ice cream standard was that no article should be permitted to be used that is in any sense deleterious or questionably so, and that proper provision should be exercised in having ice cream placed before the consuming public in a wholesome condition. To that end, before the Illinois legislature passed what is known as the Sanitary Law, it was deemed necessary to make a sanitary provision in the temporary standard formulated by this commission, but which was not promulgated as a final standard for the reason that the commission had not completed its study of the subject, but since that time there has been a Sanitary Law placed upon the statute books of Illinois, which we believe governs the case.

The Illinois State Food Standard Commission has this day determined and adopted the following standard of quality, purity of strength for ice cream for the state of Illinois, i. e.:

"Ice cream is a frozen substance, made from cream, or milk and cream, and sugar, with or without the addition of such other wholesome substances as have customarily * * * been used in making ice cream, and contains not less than eight per cent (8%) milk fat."

* * * The following other substances have customarily been used in making ice cream: Eggs, flours, starches, butter, gelatin, flavoring, harmless colors, nuts, fruits, pastries and condensed milks.

The above is hereby declared to be determined, adopted and promulgated as provided in Sections 1 and 39 of an Act entitled:

"An Act to prevent fraud in the sale of dairy products, their imitation or substitutes, to prohibit and prevent the manufacture and sale of unhealthful, adulterated or misbranded food, liquors or dairy products, to provide for the appointment of a State Food Commissioner and his assistants, to define their powers and duties and to repeal all Acts relating to the production, manufacture and sale of dairy and food products and liquors in conflict herewith."

(Signed) A. H. JONES.
C. E. M. NEWTON.
DR. W. S. HAINES.
State Food Standard Commission of Illinois.

T. J. BRYAN, Corresponding and Recording Secretary to the Commission.

GOVERNMENT LOSES GIN CASE.

The case of the United States against certain cases of alleged misbranded gin was tried before Judge McPherson in the Federal Court at Philadelphia, on April 25, and resulted in a verdict against the Government.

The jury found that the gin was not misbranded. The case was tried for the Government by Assistant U. S. Attorney, Brinton, and for the claimant, the Sir Robert Burnett Company, by John G. Johnson of the Philadelphia jury.

The gin was plainly and conspicuously labeled, "London Dry Gin Distilled in New York." The Government charged that the product was misbranded because it was purported to be a foreign product, which it was not. The jury found against this contention of the Government, evidently thinking that no one could be deceived in the belief that the gin was made in London, when the label plainly showed that it was made in New York.

It developed in the testimony that the label which the Government complained of, had plainly been approved by the Department of Agriculture, as being in accordance with the Food and Drugs Act. After the Department of Agriculture approved the label, without any notice to the manufacturers that the Department had changed its mind, the seizure was ordered. This arbitrary high handed act was commented upon by Mr. Johnson in plain English, and undoubtedly had its effect upon the jury.

FEED MANUFACTURERS TO MEET.

The fifth annual meeting of the American Feed Manufacturers' Association will be held at the Auditorium Hotel, Chicago, May 22, 23 and 24. A tentative program has been prepared and invitations have been extended to the following people, all of whom it is confidently expected will be present:

Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, United States Department of Agriculture; Dr. Chas. D. Woods, Orono, Me.; T. L. Haecker, chief of the Division of Dairy and Animal Husbandry, University of Minnesota; W. G. Crocker, chairman special legislative committee, Millers' National Federation; L. McLennan, State Feed Inspector, Oklahoma City, Okla.; Dr. G. M. MacNider, secretary Association of Feed Control Officials of the United States; Dr. Henry Prentis Armsby, State College, Pennsylvania, who is authority the world over on animal husbandry. Other well known men have also been invited, and such an array of experts as these should be sufficient to bring out a large attendance at the annual meeting.

On Thursday, May 22, the program will include a conference of state food control officials, feed manufacturers, officials fom the United States Department of Agriculture, and others interested in the proposed new federal feed law. Efforts are now being made by the executive committee of the association to have at this conference all those who have been interested in the old and new Owen bills, and other feed laws which have subsequently been written or are now being prepared. It is expected that delegates will be present to represent the Association of Feed Control Officials of the United States, the Millers' National Federation, various associations of retail feed dealers, and the Oklahoma men who were the originators of both the first and second Owen bills.

Officers' reports will be received on Friday. The president's annual address will be given by G. A. Chapman of Chicago, while the executive committee will submit its report through S. T. Edwards of Chicago. Appointment of committees will then be made, and following that action an address on "The Food Industry and Law" will be delivered by Judge Stephen A. Foster, Chicago.

The Chicago members of the association are arranging for several interesting entertainment features for the delegates and their ladies and it is hoped to make the convention one of the most valuable and enjoyable ever held.

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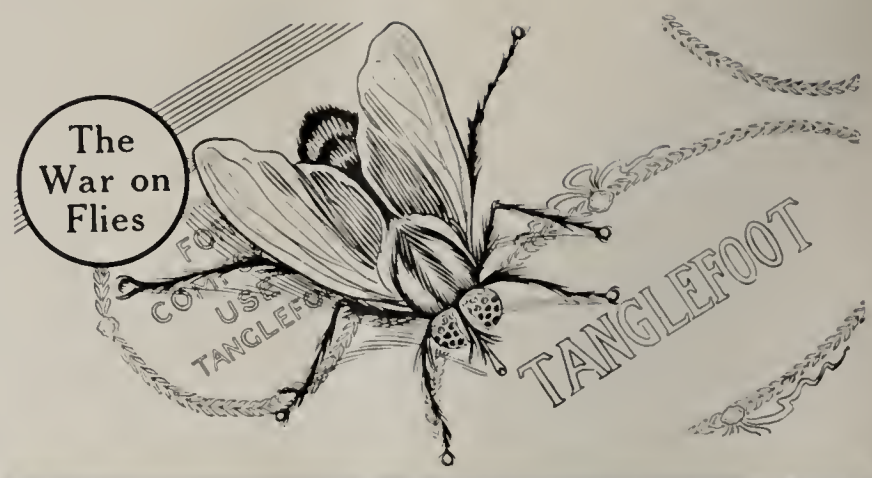
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THE AMERICAN FOOD JOURNAL



VOLUME EIGHT
NUMBER SIX

Chicago, June, 1913

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THE AMERICAN FOOD JOURNAL

There is no higher art than that which tends toward the improvement of human food.—*Beecher.*

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To Make Good Stock Food of Bad Human Food

HUNDREDS of thousands of pounds of food are yearly condemned and destroyed by food inspectors all over the country. Without doubt a great deal of such products could be utilized for feeding farm stock if it could be properly handled and sent to the farms at small expense. Because an article is not desirable for human consumption does not necessarily mean that it is of no use whatsoever, and often such destruction as referred to above is deplorable waste.

The United States Department of Agriculture through the dairy division of the Bureau of Animal Industry has been working on this problem as it refers to milk and recently conducted some experiments in order to devise some practical method of denaturing milk so that its sale as a market milk may be prevented and yet leave it in condition suitable for feeding to farm animals.

It is the custom of officials in many cities to condemn milk because of the failure of the milk dealers to comply with certain temperature standards. Usually milk condemned for such reason is emptied into the gutter. It is important that high standards be maintained for milk, especially as so much of the product is fed to infants and children, as well as invalids; and bad milk often causes, as well, quick trouble in the stomachs of strong, healthy adults. At the same time it is deplorable that so much loss should occur to dealers through destruction of condemned milk, often for causes which they find it very difficult to control. The government's experiments have demonstrated that the use of a rennet solution is effective with milk at the usual temperature at which it is condemned to save it for stock food.

In the experiments referred to a 3 per cent water solution made from powdered rennet of a strength of 1 to 30,000 was used, and forty cubic centimeters of this solution were added to 5-gallon cans of milk at different temperatures. The tests were made in a room where the temperature was 80° F., as that is about the temperature of the air in summer when most of the milk is condemned. In one test the rennet solution was added to a 5-gallon can of milk at a temperature of 50° F. In one hour and fifteen minutes the milk was slightly thickened, its temperature then being 57°. Thirty minutes later the temperature had reached 59° and a soft curd formed. An equal amount of milk at an initial temperature of 65° was treated at the same time. In one hour and ten minutes the milk in this can was firmly coagulated, and it is probable that the rennet had produced the desired effect in much less time. At the end of this period the temperature had been raised only 1.2 degrees, or to 66.2° F.

In the light of these experiments it is believed that if a rennet solution of this strength is added to condemned market milk satisfactory results can be secured under ordinary conditions without the disadvantages of the other methods which have been tried.

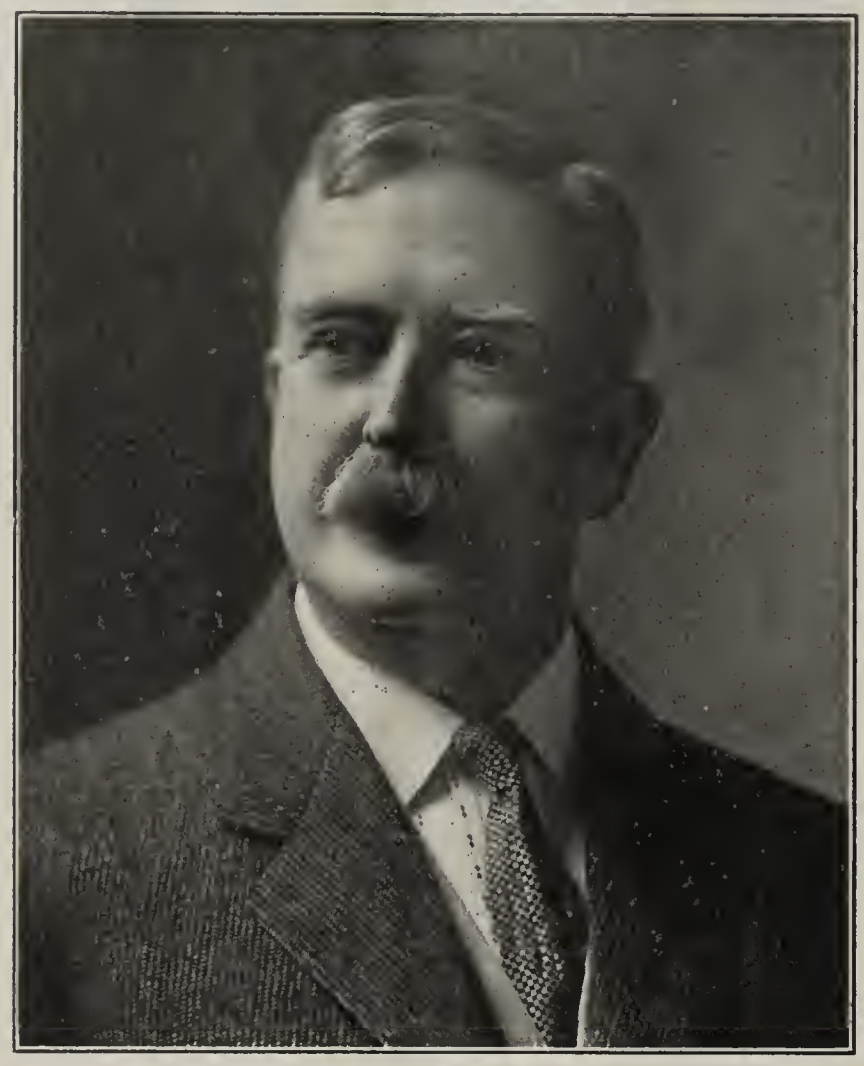
If a 3 per cent solution is made from rennet, strength of 1 to 30,000, about 2½ ounces (80 cubic centimeters) of this solution will be required for a 10-gallon can of milk at a temperature of 53° or higher. The cost of the material for this method of denaturing is very small, being only about three and one-third cents for a 10-gallon can when powdered rennet costs $7 a pound.

It is recommended that those who contemplate using this method should test their solutions in the laboratory before using them in practice, so as to know definitely the strength of each solution prepared.

This work is in the right direction and it is to be hoped that experiments will be undertaken with other products than milk, so that food which is not wanted for human consumption may not prove an entire waste, but be utilized to a good purpose.

On to the Convention at Mobile!

IN this issue of THE AMERICAN FOOD JOURNAL is published the complete program for the Seventeenth annual convention of the Association of American Dairy, Food and Drug Officials. The meeting is to be held at Mobile, Alabama, beginning June 16 and continuing four days. Last



HON. EMMET O'NEAL, GOVERNOR OF ALABAMA,
Who Will Deliver Address of Welcome to Delegates.

year the convention was held on the Pacific Coast at Seattle, and this year the delegates will enjoy the hospitality of a Southern seaport. Mobile is one of our most interesting and progressive Southern cities and no doubt will take care of this convention in a manner gratifying to the delegates, and that will sustain the reputation of Mobile for a high order of genuine old fashioned hospitality, for which that section of our country is noted.

Mobile Bay and its estuaries are famous in the history of the nation. Iberville and Bienville, the French explorers and navigators, were the first white men to explore the bay and planted their colony on Dauphin Island. The greeting of the Indian as a peace offering to the explorers was the famous Mobile oyster.

It was at Mobile that Gen. Jackson first issued his two famous proclamations, and cut loose from the War Department and invaded Spanish Florida on his own responsibility. It was at Mobile again after his capture at Pensacola that Jackson declared no British force would be permitted to make a successful invasion of American soil, and there also he forecast the attack by the British, and it was from that place he marched to New Orleans where he won the victory of Jan. 18, 1815. It was on Mobile Bay also where, as Admiral Farragut expressed it, was fought one of the fiercest naval battles of the Civil War.

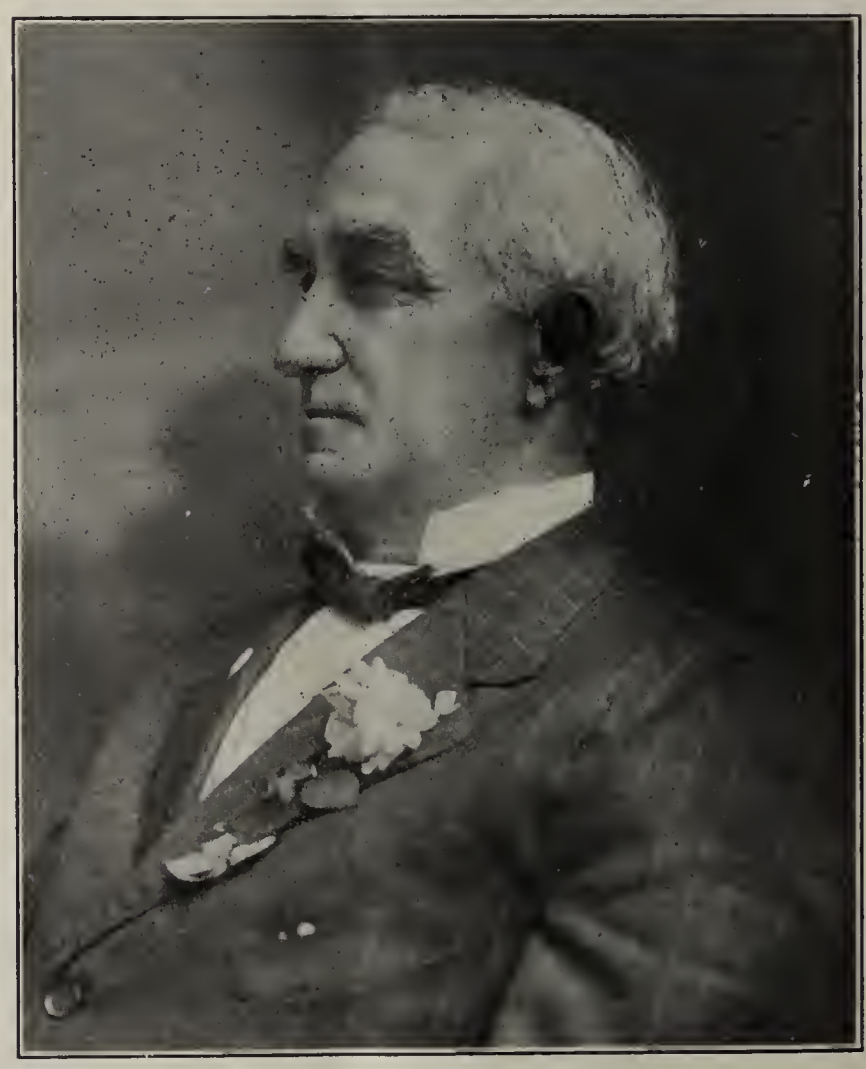
The city and bay of Mobile has been governed by five civilized nations. The flags of France, Spain, England, the American Colonies, and Confederacy have waved over the city, and now and forever the Stars and Stripes of a united nation shall float supreme.

The waters of Mobile Bay and its estuaries are absolutely pure and remote from congested and populated centers and manufacturing districts, and are free from contamination caused by sewerage, gas works and other manufacturing gases which are injurious to the oysters.

The famous Mobile oysters, clams and sea food grow prolific and rapidly in absolutely pure waters, in a zone where the climate is mild.

The people of Alabama since the coming of Iberville and Bienville up to recent date have neglected to conserve the oyster reefs or utilize the barren bottoms on which the Alabama Oyster Commission have demonstrated can be grown the most toothsome and wholesome oysters which mature in two years. The reefs which belong to the people furnish an abundance of seed for transplanting to the bottoms.

The Alabama legislature recently enacted a law creating a commission that is actively working to



HON. JOHN CRAFT.
President Alabama Oyster Commission and President Association of Shell Fish Commissioners.

conserve and increase the delicious oysters, clams and sea food, and see that the waters are kept pure and free from contamination.

Hon John Craft, president of the Alabama Oyster Commission, and recently elected president of the Association of Shell Fish Commissioners, will be active

in assisting to entertain the delegates to the convention in Mobile.

The Battle House has been chosen as headquarters for the convention delegates. Rates at that hostelry are from $1.50 to $3, and C. H. Billingsley of the pure food bureau of Alabama, Montgomery, Ala., will reserve rooms for those who request him to do so, or delegates expecting to attend may make their reservations direct by writing the Battle House.

Another hotel in Mobile is The Cawthon which is particularly well located in the heart of the city, opposite Bienville Square. The Cawthon is fireproof and modern and has in connection a splendid year-around roof garden cafe on top. This hotel is located but two blocks from the convention headquarters. Rates are $1.50 to $3.

The complete official program for the convention will be found in another portion of this issue, and provides for four days of strenuous work for the convention. Food, drug and dairy control matters will be discussed from all their different standpoints, and, as in years past, the meeting of the officials constituting the association will, without doubt, result in much good and promote harmony in the application and enforcement of our food, drug and dairy laws, state and national.

CANNERS ESTABLISH RESEARCH LABORATORY.

THE National Canners' Association has completed arrangements for the establishment of its research laboratories at Washington, D. C. As announced last month, Dr. W. D. Bigelow, resigned his office as assistant chief of the United States Bureau of Chemistry, to accept the position of chief chemist of the canners' laboratory. Dr. Bigelow assumed his new duties on June 1. Another well known government expert, Dr. A. W. Bitting, Food Technologist of the United States Department of Agriculture, has been secured by the canners to be chief bacteriologist of the laboratories. Dr. Bitting is now engaged in some government work in California and will take up his new duties just as soon as that is completed.

The National Canners' Association announces that the chemical laboratories will be in operation at the latest by August 1, 1913, and we are advised that the field will be covered on the broadest possible lines. While the principal object of the laboratories is research work to benefit the canning industry, it is also purposed to officer and maintain a commercial branch, which is designed to meet every consistent need of the canners and will be developed as rapidly as possible.

The work of the officers of the National Canners' Association in promoting the good interests of the canning industry, and disseminating accurate knowledge concerning canned goods has been carried on during the past few years in a conspicuously intelligent and effective manner. The methods have been honest and cleancut and such as have inspired the confidence of the public to an unusual degree. The establishment of the Washington laboratories for research work and placing them in direct charge of men of known ability and integrity is a splendid move, and the canning industry all over the United States will benefit thereby.

FOR SANITARY HANDLING OF BAKERY PRODUCTS.

A SUBJECT which is receiving considerable attention at the present time at the hands of food control officials, and the general public, as well as some of the state legislatures, is the sanitary handling of bakery products. In another part of this magazine we publish the regulations for sanitary handling of bakery goods issued by two state food officials, namely those of Nebraska and Texas. Bread wrapping has been made the subject of various city ordinances in different parts of the country, while numerous women's clubs are also actively interesting themselves in the subject.

There is perhaps no other food product which is eaten in its entirety and is prepared with no outer and removable protection that is subject to such careless handling as bread. Practices which would excite only deepest disgust and repugnance, were they applied to any other food product, in the case of bread escape entirely noticed by a very large proportion of the public. Bread loaves, cookies, cakes, etc., are promiscuously thrown about by dirty-handed wagon drivers and also by purchasers in the store. The writer recalls one delicatessen located in one of the best and cleanest portions of one of our large cities, where the bread was dumped by the delivery wagon driver into a box. Customers, large and small, male and female, gloved and ungloved, and all the rest of it, made a regular practice of pawing over the box of bread loaves, fingering and punching until one which pleased them was found. Then they carried it to the clerk and had it wrapped to keep it clean (!) while they carried it home.

We have all seen bread tucked away into the most convenient corners of an entrance way, or carelessly propped up against the door to be kicked away or probably stepped upon by the first person who opened the door. Of course the loaf was unwrapped and no attempt whatever made to protect it. These are but mild suggestions of uncleanly ways of handling bread, and anyone who is at all observing or has the least imagination can picture far more disgusting details than we have mentioned which would necessarily follow such careless and manifestly unsanitary practices.

The American people have stamped their indelible approval upon package goods, largely because of their sanitary appeal. Why we have so long delayed our demand for sanitary protection of bread and other bakery products is one of the "inscrutible mysteries."

We hear a good deal now-a-days about the "elimination of the human hand" in our various food manufacturing processes, but what is the use of exercising the most strenuous precaution to prevent contamination while a food is being prepared, then spoil it all by filthy care and handling of the finished article?

The people of Holland do not as a rule, we are told, serve a warm meat breakfast, but almost universally take a cold, light meal, consisting of bread, cheese, cold meats, milk and tea or coffee.

Macaroni manufactured in the United States now totals over 100 million pounds annually (from home-grown Durum wheat) while the imports are about the same amount.

Household Science and the Table

Conducted by Elenora Elizabeth Reber.

THE LUSCIOUS STRAWBERRY.

IT is doubtful if there is any other one variety of fruit the advent of which is hailed with such universal and enthusiastic delight as is the case with the strawberry. There are a few unfortunate individuals with whom the acid of the fruit disagrees, and a very few to whom these berries act as a poison to their systems. The great majority of people, however, not only relish the flavor of strawberries, but find them exceedingly beneficial in their effect, and consume a large quantity when the fruit is in season, insisting upon their being served daily.

The color and shape of the strawberry delight the eye, the delicate flavor is most satisfying to the palate and no table, however elaborately set, but the strawberry finds favor thereon. If one can pick these luscious berries from the vines in the early morning with the dew sparkling on them, take them to the house and gently wash them in cold water, and eat them in their prestine freshness the acme of enjoyment of the fruit is attained. City people are not so fortunate as to be able to do this, however, and they have just cause for congratulation that so much of the original flavor of this fruit is retained after picking and shipment from more or less distant markets.

In writing of this berry someone has said: "In the luscious pulp—light, juicy, perfumed—is disposed a whole medicine case of excellent physics, all palatable, all strong in action when the blood receives them, but all so delicately concealed by the operations of Nature's deft laboratory that the eater of the fruit is quite unconscious that he is taking medicine. The acid in the berry is a compound one, being a mixture of citric and malic. It is not found in this sweet fruit in such quantity as to give the strawberry any tartness, nevertheless its influence in aiding food-change in the body is marked. If eaten with food that is rich in lime it forms citrate of lime, while if food has been taken with strawberries which contain sodas and potashes citrates of soda anl potash are formed by combination with the strawberry juices."

Not everyone uses intelligence in washing strawberries. Do not put hulled berries in a collander and turn on them a strong current of water from the faucet; the force of the water in such a case extracts the juice from the hulled berry. The best way is to provide one's self with a pan of water and put into it only a few berries at a time, rinsing each specimen slightly, before removing the hull. The berries will float and any sand washed from them will go to the bottom of the pan, and since the berry is not hulled until removed from the water no juice can be lost. A gentle shake disposes of any superfluous moisture.

Used as a garnish strawberries will make the plainest pudding exceedingly attractive in appearance, and there are few ordinary puddings that are not rendered still more palatable when eaten with ripe strawberries, either crushed or whole as the character of the pudding makes desirable.

Of all strawberry combination dishes, the shortcake easily stands at the head of the list. There are numerous ways of mixing the "cake" portion of the dish. Some tastes prefer it sweetened, and others unsweetened; one cook butters the cake and another prefers it unbuttered; difference of opinion exists as to whether the dish is best hot or cold; some people like the crusts soaked with the juice of the berries, and others want the cake crisp and the berries between the layers whole and crisp. And so the differences in minor details go, but after all they are not sufficient to materially change the character of the dish.

There are many other ways of serving this delectable berry besides au naturel and in shortcake, and a few recipes that come to us highly recommended are here appended.



STRAWBERRIES MOLDED IN JELLY.

Soak one-half box of granulated gelatine in one-half cupful of cold water until soft. Then add one cupful of boiling water, the juice of one lemon, one cupful of sugar, one pint of orange juice. Stir until sugar dissolves, then strain through a cloth. Fill individual molds or small cups one-third full of the gelatine, set on ice until firm, then place a thick row of large hulled berries on this and add enough more gelatine to almost cover them. When firm place more berries in and finish with the gelatine. When ready to use garnish with whipped cream.

STRAWBERRY CUPS.

Put one pint of strawberry juice over the fire; moisten three tablespoonfuls of flour in a little cold milk; stir into the hot juice and keep stirring until thick and smooth. Take from the fire. When cold add the yolks of four eggs and then fold in carefully the whites beaten to a stiff froth. Fill into greased custard cups and bake in a moderately quick oven fifteen minutes. Serve with strawberry sauce, which may be made as follows: Mash and strain sufficient strawberries to make half a pint of juice; put over the fire until it just reaches boiling point; add a tablespoonful of lemon juice and pour it over half a cupful of sugar that has been mixed with a tablespoonful of flour. Return to the fire, cook for just a minute and pour while hot into the beaten whites of two eggs, beating well. Serve at once.

STRAWBERRY TRIFLE.

Place lady-fingers split in two, lengthwise, and pile log-cabin fashion on a pretty glass dish. Then distribute in between the fingers at base and center the fruit, adding seasoned whipped cream only in the center of the cabin and on top.

STRAWBERRY ICE.

Mash two quarts of berries in a bowl with a slice of lemon and let stand for two hours. Make a syrup of two cupfuls

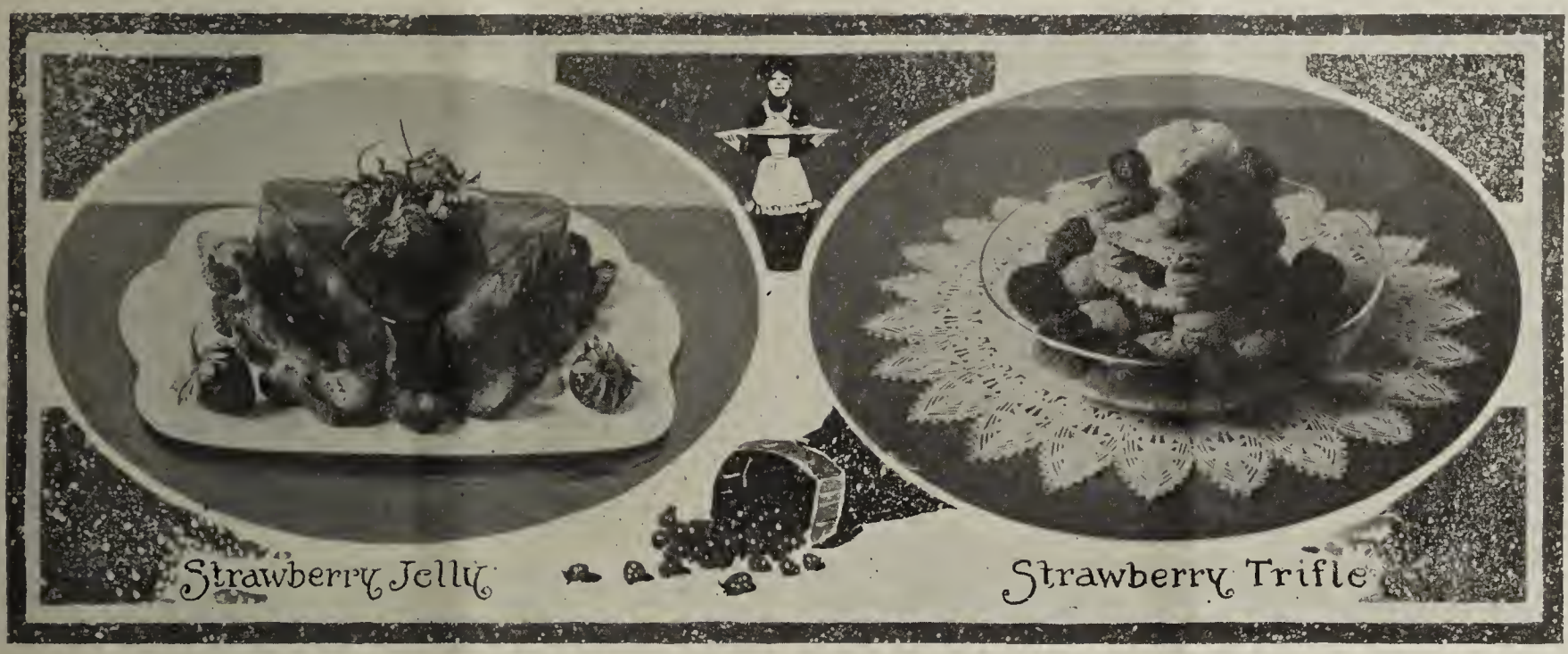
of sugar and two of water; heat until clear, than strain. Put the berries into a jelly bag and squeeze out all the juice. Add this to the syrup. When cold freeze in freezer.

STRAWBERRY PIE.

Line a pieplate with rich pastry, and after carefully washing the berries arrange them in a thin layer on the bottom of the plate. Sprinkle with sugar and dredge a little flour around the edge to thicken the juice and lay a top crust over all. Wet the edges carefully so the juice will not escape, and it is safest to wet a strip of white cloth in milk and fasten it around the edge of the pie. This will prevent the juice from escaping and can be removed when the pie is taken from the oven.

GLORIFIED BABA.

Take one pound of risen bread dough and work into it two tablespoonfuls of sugar, a generous half cupful softened, not melted, butter; three whole eggs, and beat with the hand until the mixture separates; then turn into a tube baba pan or cake mold, filling only to half its height. Set to rise and when risen to the top bake in a hot oven until a straw color. Remove immediately from the mold and pour over a syrup made from berries, orange juice and sugar. About a pint of syrup should be used. Let stand until the baba has absorbed the syrup and is cool, then cover with strawberry marmalade or jam. Fill the hollow center with fresh fruit, garnish the outside with boiled icing and place fresh berries about the base.



STRAWBERRY SOUFLLE.

Press a quart of berries through a sieve, add six tablespoonfuls of sugar, and the stiffly beaten whites of six eggs. Mix lightly and bake in a buttered dish for thirty minutes. serve immediately with cream.

STRAWBERRY SPONGE.

Soak one-fourth of a box of gelatine in one-half cupful of cream. Set in boiling water until dissolved. Beat the yolks of three eggs with half a cupful of sugar, add one-half cupful of milk, and cook until a thick custard. Add the cream and gelatine then cool. Rub a cupful of strawberries through a sieve, add a spoonful of lemon juice, and stir into the cooling jelly. When it begins to stiffen, add the stiffly beaten whites of four eggs, beat all until stiff and turn into a mold to harden.

BAVARIAN CREAM.

Soak one-fourth box of gelatine in one-fourth cupful of cold water until soft; then add one cupful of hot strawberry juice boiled with one-third cupful of sugar. When cooled add one teaspoonful of vanilla extract, then one pint of whipped cream. Turn into a mold and chill on ice. When ready to serve unmold the cream onto a layer of yellow or white sponge cake. Garnish with whipped cream and strawberries.

TO CAN STRAWBERRIES.

A Virginia housekeeper has given the following recipe for canning strawberries, which, she says, if followed closely, will prove that the peculiar flavor of the berry can be retained Put four pounds of white sugar in a kettle, and add to it one cup of cold water. Let it boil until it is perfectly clear, then add four quarts of berries. The larger and firmer the berry, the prettier they look in the jar. Boil for ten minutes, keeping them covered with the syrup, but be careful not to stir them, lest their good appearance be spoiled. Take out the berries gently with a small strainer and place in the cans, filling about three-quarters full. Let the syrup boil about ten minutes longer, and fill each can with it. Leave them standing until cool, then cover with a tablespoonful of brandy. Screw on the lids and put them in a dry, dark place. I am sure there will be no disappointment in the eating.

If, after a few weeks, the slightest fermentation appears, put the cans in a boiler—putting in first a small board to prevent contact with the bottom—fill with cold water nearly to the top of the cans; loosen the lids, but do not take them off. Let the water boil for a little while, then take out the cans, tighten the covers and the berries will keep for more than a year. They are not likely to need the second boiling if the first is done correctly.

Another way to can strawberries—and one which is very simple—is to put sugar and fruit on at once, using half a pound of sugar to one pound of berries. Let them get boiling hot, and then put them immediately in glass jars, which must be hot. Seal them up tight, keeping the jars standing in hot water while the filling process is going on.

STRAWBERRY TAPIOCA.

Soak one cup of flake tapioca over night in cold water. In the morning put half of it in a baking dish and sprinkle over it half a cup of sugar. On this put a quart of strawberries, more sugar and the remainder of tapioca. Fill the dish with water to cover the tapioca a quarter of an inch. Bake in a moderate oven until clear. Eat cold with cream.

FIG DESSERT.

Use one pound of figs. Soak in cold water until soft, then stew slowly until tender. Add sugar enough to make a rich, heavy syrup, and flavor with a few drops of vanilla. Cool and turn into a glass dish. Just before serving, cover the figs with whipped cream which has been sweetened and flavored with vanilla. Serve small plain cakes or wafers with it.

RHUBARB MERINGUE.

Make a shell of good light pastry, then fill with some of the baked rhubarb. Cover the top of the fruit with a meringue made from the whites of two eggs beaten stiff with two tablespoons of sugar, and color a delicate brown in a slow oven. The great secret in having a puffy light meringue lies in its slow cooking, which is not much more than a drying. If the oven is too hot the meringue toughens and shrinks.

The citrus fruit growers in the vicinity of Tampico, Mexico, have organized the Mexican Gulf Coast Citrus Fruit Association, with Mr. W. M. Hanson as president, and Mr. George Allen, of Tampico Alto, Vera Cruz, as secretary. One of the chief purposes of the organization is to protest against the quarantine established against Mexican citrus fruits by the United States Government.

SALAD LORE.

SALAD making and salad eating is a custom of great antiquity. The Romans knew how to appreciate a good salad, but their methods of salad dressing would hardly appeal to modern palates; for oil, ginger, honey, nitre and the ubiquitous "garum" (a sauce made of the gills of various pickled fish) were amongst the favorite ingredients. The Romans were in the habit of eating salad at the beginning of a meal as a kind of *hors-d'oeuvre*, under the idea that it stimulated the appeitte, a custom which was followed by our own country during the Mildle Ages, and has of late become again fashionable. The enormous range of herbs grown in England in Elizabethan days made salad dishes particularly acceptable to our ancestors, says *Food and Cookery* of London. It is true that ordinary vegetables, or "worts," as they were called in the Middle Ages, were but little eaten, owing to the ignorance of the proper methods of cultivation, but on the other hand the supply of kitchen herbs was far more plentiful than nowadays. Gerarde, the herbalist, quotes over thirty as being in general use, viz., Spanish nuts, onions, lecks, chives, garlic, turnip-tops, winter cresses, rocket, tarragon, various cresses, garden succorie, dandelion leaves, endive, lettuces wild and cultivated, beets, spinach, orach or atriplex, dock leaves, sorrel, roots of rampion, lesser house leeks, purslane, sampier leaves, brook-lime or water pimpernel, borage, bugloss leaves, hop sprouts, garden burnet, leaves of musk-roses and rosemary. Further mention is made in culinary MSS. of that period of avens or herb bennet, costmary (cultivated in the Middle Ages for the agreeable fragrance of its leaves), dittany, an aromatic plant, hyssop, savoury, tansy, mallows and pellitory. How many of the above are used in the kitchen nowadays? These herbs were eaten particularly in the spring time, for the majority of them were believed to have medicinal properties of especial value to the system after the salt-meat diet of the winter months.

The name of John Evelyn naturally rises in connection with the salads of the past. He it was who, once for all, laid down the true principles of salad-making in his "Acetaria," and no later authority has materially improved upon his theories.

Distinguishing between "olera," vegetables for the pot, which should never be eaten raw, and "acetaria," vegetables which should never be boiled, Evelyn declared that to cook a salad by heat or by any slow process of pickling was to deprive it utterly of its essential qualities. He declined to regard fruits as an ingredient in salads, and he certainly knew nothing of the modern combinations of nuts, cheese, fish, eggs, game and poultry. As regards the dressing he was of the opinion that an "artful mixture of mustard, oil and vinegar, with or without the addition of hard-boiled yolks of new-laid eggs, carefully rubbed into the dressing," was all sufficient. The mayonnaise sauce of a later period was of course unknown to him. A point that Evelyn strongly insisted upon was the composition of the salad bowl. To pour an acetous dressing into a metal bowl, whether silver or pewter, was an outrage in the eyes of this authority upon salad making. The only possible bowl to use, he averred, should be one of "porcelaine or of the Holland Delft ware."

Evelyn's list of admissible *saladings* exceeded Gerarde's by some sixty or seventy items, and included daisies (blossoms and leaves), gilly-flowers, nasturtiums, thistles, vine tendrils, tulip bulbs, daffodil buds, etc.

To come down now to modern salad-making. Everyone here present knows what a welcome accessory salads are—green and otherwise—to the dinner or supper table, and given a light hand and some sense of artistic arrangement, they are very little trouble to prepare. A popular delusion is abroad that salads can only be obtained in the summer-time, when green food is plentiful, whereas any kind of vegetables, raw or cooked, may be added or substituted in their proper season, and the result is still called by the catholic name of salad.

We have in these days narrowed our list of salad herbs very materially, and the foundation ingredients for salad making are now obtained chiefly from lettuce, endive, chicory, small cress, water-cress, corn salad, sorrel, spinach and cucumber, but to any of these may be added cooked potatoes, cooked cauliflower sprigs, celery, beetroot, tomatoes, chives, cooked asparagus tips, cooked artichoke bottoms, cardoons, mushrooms, cooked peas and cooked beans. the whole being frequently fortified in these days of non-flesh diet by nuts, cheese, eggs and pulses, or by meat-eaters with flaked cooked fish and finely shredded cooked meat, game or poultry.

Salads vary according to the fashion of different countries. A true French salad consists of but one kind of vegetable in addition to the herbs used, whilst a Russian salad is noted for its variety of mixed vegetables. The following is a recipe for a typical French salad:

Remove all the outer leaves of two good cos or three cabbage lettuces, and cut off the stalks quite close. Wash in cold water. Dry them well after draining them well in the salad basket and break up the leaves small. Now beat together in a basin four tablespoonfuls of best olive oil, with two tablespoonfuls of either plain Orleans (wine) or tarragon (wine) vinegar, and a good pinch of black pepper and salt to taste. Then lay in the lettuce, and turn it well about in the mixture, adding a little very finely minced green spring onions or chives, and very little chopped green tarragon and chervil. Keep tossing it together till the salad has absorbed the dressing, and is equally saturated with it. Then lift it out of the basin and place it into the salad bowl, containing a piece of toasted bread which has previously been rubbed over with a cut clove of garlic. This salad is called *Salade Romaine* if cos lettuce is used, and *Salade de Laitue* if cabbage lettuce is used. Endive, sometimes called chicory, salad is made in precisely the same way.

In the average English household, however, there is still room for enterprise in the matter of salads. Whether or no we tend to remain, as French cooks say, a "one-sauce people," we are certainly in great measure a "one-salad" people, and even more, a "one-salad-dressing" people. The most popular salad in this country is, no doubt, the lettuce salad, that is to say, lettuce forms by far the chief ingredient of an English salad. Indeed a salad in the English style— *a l'Anglaise*—would not be recognized without its proper proportion of lettuce. Yet variety in both salads and dressings can be obtained with but little greater expenditure of time or money.

As to the preparation of salads there are certain directions which nobody can afford to despise who would rise high in the art of salad making. First and foremost, it is absolutely essential that in preparing green salad every leaf should be most carefully washed and thoroughly drained. This is best effected by placing the leaves, after they have been picked and washed and divided into convenient pieces, into a wire salad basket, or by folding them in a clean cloth and shaking well without crushing or bruising the leaves. Where moisture remains on the leaf the oil dressing will not stay, the mixing is ineffective, and the salad is spoiled. Long soaking in water should be avoided.

Next in importance to the dryness of the salad is the injunction never to let the leaves be touched by a steel knife. They must be torn or broken by the fingers, or cut with a bone, ivory or silver knife, and tossed into the bowl in which the dressing has already been mixed.

The question of the salad dressing is of equal importance to that of the salad. Oil and vinegar supply all that is really necessary as a salad dressing. The more elaborate mixtures sometimes substituted often detract from, rather than add to, the excellence of a salad. Many English people are prejudiced against the use of oil, but this is partly because of the poor qualities upon the market, and the high price of good oil as compared with the continent. Only the purest olive oil should be used, or failing that, good nut oil, for the salad itself is cheap enough, and so deserves a careful selection of the adjuncts. The same with the vinegar. Avoid cheap vinegars, which are in reality nothing but pyroligneous acid, and get pure wine vinegar, as this produces the best result for salads. Vinegar ought literally to be *vinaigre*. Malt vinegar does not usually make good salad. Lemon juice is frequently used by those who object to the vinegar. A little cider added with the vinegar is considered an improvement by many.

Sydney Smith, who is so often quoted in connection with "salad making," settled the proportions of salad dressing years ago as three tablespoonfuls of oil to one of vinegar, and as for the mixing one is reminded of the old Spanish saying which advises the salad maker to be a spendthrift with the oil, a miser with the vinegar, a wise man with the salt and pepper and a madman with the mixing. The necessary salt and pepper should be dissolved in the vinegar before the oil is added, for vinegar is a solvent and oil is not. If oil is very strongly objected to, it can of course be omitted, and a dressing made of the vinegar only, seasoned with pepper, salt and castor sugar to taste, varied occasionally with salad cream. Finely shredded bacon, fried crisp and mixed with salad, is also considered a good substitute for oil. The cheaper salad dressings are composed mainly of oil, vinegar, mustard and milk, varied by hard-boiled yolk of egg and a little cream, the richer or mayonnoise dressings being made with raw yolks and the usual concomitants. Vinaigrette sauce is sometimes substituted, consisting of vinegar, oil and chopped gherkins, capers, parsley and shallots.

DID YOU KNOW?

By Mary D. Chambers, Rockford College.

Did you know that raw cabbage is easier of digestion than cooked cabbage? Raw cabbage is digested in two hours, while cooked cabbage takes four and one-half hours. Raw cabbage salads, then, may be appropriately offered to your family or your guests. Make them of red, white, or green cabbage, or of all three in concentric rings; shred your vegetable as fine as a hair, slice it in delicate ribbons, or chop it in little bits, it will look pretty, it will taste good, and it will be comfortably digested by the ordinarily healthy person.

Did you know that if you boil cabbage with the lid off the kettle, and use a large quantity of water, boiling all the time, and keep the cabbage well under the water, there will be no odor, or none to speak of, during the cooking?

Did you know that lemon in tea reduces its exciting effect, so that it will not be so apt to cause sleeplessness? This does not mean the conventional thin slice, but a generous squeeze—a kind of tea lemonade.

Did you know that the stimulating effects of tea are more lasting than those of coffee? Hence if it is taken on a long railroad journey, during a siege of house-cleaning, or in the pilgrimages to the bargain counters, it will be more refreshing than the same quantity of coffee.

Did you know that plenty of lettuce should be served as an accompaniment to cheese and all cheese dishes? The potash salts of the lettuce help to dissolve the casein of the cheese, making it more digestible. Thus a cheese and lettuce sandwich makes an almost ideal combination.

Did you know that in making a meat stew you should not skim off the brown scum? This is part of the albumen of the meat, that has been dissolved by the water, and it looks unsightly because it is mixed with some of the coloring matter of the blood. But these good brown flakes are as nutritious in your stew as they are in your beef-tea.

RED PEPPER INFORMATION.

Red peppers form the subject of Bulletin 163, by L. M. Tolman and L. C. Mitchell, issued by the Bureau of Chemistry of the United States Department of Agriculture. In it all varieties of red pepper used in the United States are described and analyzed.

The same variety of red peppers, grown under different climatic and cultural conditions, yields products adapted to different uses. We import wild chilies from Mombasa and Zanzibar, gathered by a semi-civilized population and dried on the ground, so that they come to us covered with dirt and sand and must be cleaned before grinding. They are ground and used principally as spices. On the other hand, the cultivated Japanese chilies are used unground in the preparation of chili sauce. Similarly, the Hungarian paprika is prized as a spice, while the Spanish paprika has a distinct commercial use as a coloring for such products as sausage and tomato ketchup.

The investigators of the bureau sought to determine the normal composition of the various red peppers, with special reference to the deviations in amounts of ash, sand, ether extract and crude fiber, and also to study the distinctive odor, flavor, and taste, that the part of the fruit to which the characteristic properties are due may be known. Another object has been to investigate the effect on the composition of ground pepper of including or excluding seeds or stems, for the purpose of detecting their presence or absence.

An interesting point noted is that the pungent principle occurs almost exclusively in the placenta, a thin membranous partition inside the shell. In some cases, however, a better result is obtained by grinding the seed with the rest of the fruit, as the oil freed in this way dissolves the color of the product and apparently develops the flavor and aroma.

A FEW SALAD RECIPES.

LETTUCE SALAD.

Trim and wash thoroughly three cabbage or two cos lettuces, drain them well, break the leaves into convenient sized pieces. Prepare a dressing with finely chopped garden cress, tarragon, chervil, three yolks of hard-boiled eggs rubbed through a fine sieve, three tablespoonfuls of salad oil, one of wine vinegar and a little French mustard. Work all until smooth and add to the lettuce. Mix carefully and serve.

MIXED SALAD.

Trim two cabbage lettuces, one endive, rinse in cold water and drain them thoroughly; then break the leaves into small pieces and put them in a salad bowl. Place some finely shredded celery and slices of cooked beetroot neatly arranged on the top. Season with salt and pepper, also with salad dressing, which is mixed with a small quantity of cream in addition to the usual ingredients used for salad dressing.

TOMATO SALAD.

Cut some firm ripe tomatoes into slices, lay them in a salad bowl with a few thinly cut rings of Spanish onion, sprinkle over with chopped parsley, season with salt, pepper and a pinch of castor sugar. Dress with oil and tarragon or wine vinegar. Serve with a bottle of salad dressing. The onion may be omitted if not cared for.

POTATO SALAD.

Cut some cooked potatoes into thin slices, put them in a salad bowl, mix with one part of vinegar, two of salad oil, a little chopped chives and parsley, a small quantity of chopped capers, and season with salt and pepper. Mix carefully so as to incorporate all the seasoning without breaking the potatoes. Dish up and serve.

CELERIAC AND ENDIVE SALAD.

Wash and peel one or two celeriac or celery roots, boil them till half cooked in salted water and cut them into slices when cold. Trim, wash and drain two small or one large endive, see that the leaves are divided up fairly small. Next mix these salad ingredients carefully together with just enough vinaigrette salad dressing to season, then range neatly in a salad bowl. In the center of the salad place a group of neatly cut rounds of cooked carrots and surmount this with a tiny heap of finely grated horseradish. Serve separately with the salad a little mayonnaise sauce enriched with a tablespoonful of whipped cream and a good pinch of Hungarian pepper. If liked three-quarter cooked cold poatoes, cut into slices, can be added to this salad. These should be mixed carefully and seasoned with the celeriac and endive.

RADISH AND BEAN SALAD.

Take a bunch of large red radishes and cut away the leaves and root. Slice the radishes thinly and put them into a bowl. Slice also two or three young cooked carrots and a similar quantity of cooked French beans, cut these into short pieces and mix the three vegetables together carefully. Season with salt, pepper, olive oil, tarragon vinegar and finely chopped chervil. Dish up neatly in a salad bowl and serve.

MIMOSA SALAD.

Cut into small thin strips or shreds the hard-boiled whites of three eggs. Wash, trim and cut into fine julienne strips four or five heads of Belgian endive. Mix these ingredients together and add two large truffles, also cut into fine shreds, then season lightly with salt and pepper. To one and one-half gills of mayonnaise add two tablespoonfuls of cold potato puree and a tablespoonful of cream; mix thoroughly, season with a good pinch of paprika and blend this carefully with the other ingredients. Arrange all neatly in a salad bowl, heap up high, and rub the yolks of three eggs through a coarse sieve so as to cover the surface of the salad. Lastly, make a pretty green border with small cress or water-cress round the salad. Sprinkle a little finely chopped chives or parsley on top, and serve.

BEETROOT AND POTATO SALAD.

Peel a large boiled beetroot and cut it into slices, then put into a small basin, season with salt and vinegar and allow to remain for six hours. Steam in their skins six large new or kidney potatoes, peel and slice them and while they are still warm pour over them the beetroot juice. Next season with salt, pepper, olive oil and finely chopped chervil and chives. It is not necessary to add vinegar, as the beetroot juice is sufficiently acid. The potatoes must be entirely covered with the juice. Let them steep in it over night if possible, and the next day they will be impregnated with the juice, also taking its color. Before serving, pour off some of the liquor. This salad is sometimes served as *hors-d'oeuvre,* and is much appreciated as such.

BATAVIA AND CELERY SALAD.

Trim, wash and drain two heads of batavia, divide into small pieces and drain in a cloth or in a salad basket; mix this with a small quantity of finely shredded celery and sprigs of water-cress or small cress, then place it in a salad bowl. Season to taste with salt and pepper, pour over some salad dressing; just before serving mix the salad thoroughly. In place of batavia, endive can be used if liked.

Household Science at St.-Mary-of-the-Woods

EVERYWHERE, in all classes and kinds of schools where girls and young women are educated, from the little public school house in the rural district to the beautifully located and palatially housed exclusive institutions of learning and culture for the daughters of the ultra-wealthy, there is evidenced an enthusiastic interest in establishing and maintaining household science departments of study. Dignity, importance and attractiveness are being vested in this subject of domestic economics and girls of all ages are taking up the study earnestly and enthusiastically which bodes well for the future of the home life of the nation.

One of the large institutions for higher learning for women, St. Mary-of-the-Woods, located at St. Mary-of-the-Woods, Indiana, has recently established, a department of domestic science and art in its curriculum, and the large number of students who at once became members of the classes proves conclusively that the new departure is appreciated, and was truly desired by the students.

"A stately pile of white stone buildings extending from east to west almost a thousand feet, with a lovely conventual church set in the midst like an exquisitely carved 'gem of purest ray,' and surrounded on all sides by a charmingly varied natural environment—such is St. Mary-of-the-Woods," says one writer in reference to the place. "The main building is in pure Renaissance architecture, four stories in height with handsome colonnaded entrance and a row of unique *oeil de boeuf* windows running across the broad facade above the Corinthian pediment. It is a faithful imitation of the early palaces designed by Michael Angelo, marked especially by the balustrade of the roof and the beveled stone of the first story. Within all is bright, airy, spacious and elegant."

But we turn from the poetic description of this beautiful entrance hall and give our attention immediately to utilitarian and prosaic matters, and seek an interview with the teacher of the domestic science department of this school, for it was our special mission there to learn something of that feature of the educational work at the institution.

Miss Rose Trimpay, a charming, and it seemed to us, somewhat youthful appearing young woman for such a responsible position, was introduced as the chief instructor in domestic science, being in charge of the department. Her description of the new department and the scope of its work was as follows:

"The introduction of a domestic science department at St. Mary-of-the-Woods was in response to the modern idea that only skillful management, based on scientific principles, can procure the highest degree of efficiency in the mechanisms of the household. The courses in cookery include the study of food principles; composition of and their relation to the body; chemical and physical reactions, in connection with the digestibility of various foods and their dietetic value; also intelligent understanding and skillful preparation of eatables in an attractive, palatable and economical manner. The principles of chemistry and physics are in daily application.

"Advanced courses include invalid cookery, infant diet, and a special course in serving. The course on invalid cookery includes the preparation of such foods as are suitable for the patient recovering from the diseases which are most commonly cared for in the home. Special menus and dietaries are planned for specific cases and prepared by the class.

"In the lessons on infant diet, the food requirements of children to the age of six years are studied in connection with the practical work done in the laboratory. In the serving course, the members of the class work in groups, each individual having an opportunity to plan, prepare and take part in the correct serving of formal and informal meals.



DOMESTIC SCIENCE CLASS AT ST.-MARY-OF-THE-WOODS.

Throughout the serving course the student is impressed with the importance of serving good food, palatable and well cooked, in a dainty and attractive manner. A study of correctly balanced menus and estimations of approximate food values are made before the actual laboratory work is done.

"The theory and practice are closely interwoven throughout the entire course. The work is performed in an ideal kitchen laboratory, equipped with all the appliances necessary to perfect results."

Included in the household economics course are sewing, which includes designing and making entire outfits of wearing apparel, lingerie, blouses, shirtwaists, skirts, dresses, etc., etc. Plain and fancy stitches are learned, and throughout the entire sewing course the fundamental principles of design are always kept in mind and applied.

The girls at St. Mary-of-the-Woods who complete their academic courses and include work in the household science department, are well fitted to take charge of their own homes when the time comes, whether it be in a cottage or a more pretentious house. They are educated in the highest and best sense, and fully capable either of themselves performing the daily tasks, or intelligently directing their performance by others. Such an education is the kind that is worth while for any young woman to achieve.

CULINARY CUSTOMS IN SYRIA.

IT is always interesting to know how the people on the other side of the world live, and a constant surprise to most Americans to learn how primitive are some of the everyday methods of doing simple things. A recent consular report sent to our government from Jerusalem by John D. Whiting describes methods of cooking and kind of stoves used in that part of the world which our readers will find interesting. Mr. Whiting writes:

The inhabitants are divided into three distinct classes: First, the "Bedouin," or nomad; second, the "fellah," or farmer; and, third, the "medany," or city people. The Bedouin is constantly on the move with his tent home of goats' hair, and therefore carries no stove at all. Two or three stones serve to raise the copper pot, in which all meals are prepared, from the ground, and beneath the pot any wood, brush, or thistles which are at hand serve as fuel, and in the absence of these dried camel's dung is made use of. Their bread is quickly baked in thin sheet-like loaves on the upper surface of a circular convex utensil of thin sheet iron placed over a smoldering fire with the convex side uppermost.

The "fellah" home, as a rule, is built with one room, which serves for all purposes. On one side a fireplace is built into the wall similar to the American old-style fireplaces, and in this, built of stone plastered with clay, is a tripod arrangement to hold the handmade clay cooking pot which is most generally in vogue among this class. Brushwood and thistles are the most common fuel. This fireplace is used only in winter, a somewhat similar one cut in the court, generally under shelter, serving as a summer stove.

Their bread is baked in a "taboon." This is a low dome about 30 inches in diameter, made of unbaked clay mixed with stubble, without a bottom, resting on the ground, and with an opening in the top. It is placed in a small hut upon three or four small stones which raise it a couple of inches from the ground. The exterior of this dome is banked up with hot ashes which are kept continually smoldering, the fuel used being dry manure. Inside the dome the floor is strewn about 4 inches deep with pebbles.

In baking, the woman brings a wooden bowl of rather thin dough to the "taboon" and takes a small piece of the dough which, being dexterously flung from one hand to the other, is thus spread into a loaf some 10 inches in diameter and three-quarters of an inch thick. This is thrown into the oven through the opening in the top onto the hot pebbles. When the "taboon" floor is quite covered with these loaves, a clay cover is placed on the opening, and in a few minutes the brown loaves, full of indentations made by the pebbles, are taken out thoroughly baked.

The city people formerly used charcoal entirely for cooking purposes. This fuel was used in a small portable stove called "tabakh," made of unbaked clay mixed with fine straw. These are made in shape like an ordinary flowerpot. Halfway up inside is a partition of the same material, full of holes, which allows the ashes to drop into the bottom section that is provided with a small opening or door which admits the air from below for the draft as well as affording an opening for removing the ashes. On the outside of the "tabakh" are two small ledge handles to enable the cook to move it about readily. Similar ones somewhat different in shape are made of sheet iron and are extensively used. The largest of these "tabakhs" are not over 12 inches in diameter and capable of holding and heating only one copper "tangera" or pot at a time. Still, a city woman will serve quite a sumptuous dinner of many dishes cooked on four or five of these little stoves.

A woman of this class never stands to work if she can help it. Her kitchen is not provided with a chimney, so she starts a fire in the stoves and places them in the open court of the house until the fire is well started and the charcoal has ceased giving out poisonous fumes, when she moves them into the kitchen, places them on the floor in a half circle around her, and either sitting on her heels or on a low block or stool, or cross-legged on a cushion, prepares the meal. A round board some 20 inches in diameter and raised from the ground a few inches serves as a kitchen table.

The bread is home-made, but baked in public ovens. The domes of these public ovens are built of a species of soft fireproof limestone, with a floor of neatly matched blocks of a harder kind of limestone. The fire is made of scrub-oak roots, olive wood, or thistles, and is kept burning at one side while the remainder of the floor is utilized for small loaves of bread and trays of savory dishes. The baker lights up the oven, to note the progress of baking, by throwing in from time to time a small handful of crushed olive seeds, which are the residue after making the olive oil.

While in the larger cities the natives have, to a marked extent, copied foreign methods in many ways, and while European families use wood and coal ranges, the native women have continued, until only a few years back, the use of the primitive charcoal stove. In the last ten years the small petroleum stoves, which generate the gas they consume by an air pump forcing the oil through a pipe which is continuously heated by the flame thus produced, have become almost as common as their primitive predecessors.

This change has come about, not by the desire or felt need of a better article (the old style is still generally preferred), but has been prompted by economic considerations. The scarcity caused by constantly uprooting the scrub oak has so raised the price of charcoal, and the constant competition for trade has, on the other hand, so lessened the price of kerosene oil, that the latter is fast becoming the fuel of Palestine. This is especially true since American oil has been introduced into the market here.

There are no gas stoves in use such as are fed by gas, either natural or manufactured from coal or other substances.

MUTTON AND ITS VALUE AS FOOD.

Farmers' Bulletin 526, "Mutton and Its Value in the Diet," which has just been issued by the Department of Agriculture, tells of good ways of preparing old dishes and of new ways to utilize the new dishes which can be made from mutton, and is the latest of the bulletins which have been given the popular name, "Uncle Sam's Cook Books."

Mutton and lamb have always been regarded as particularly wholesome, and there is reason for this belief, as shown by the work of the Department of Agriculture. Of the two meats lamb has been the more popular in the United States in recent years, perhaps because special attention has been given to raising it for the market and to extending its season. On the other hand, mutton is the favorite in England. The whole question is simply one of taste, and mutton in some form or other has always been a staple and favorite food, used in large quantities, and on account of its good qualities worthy of much more extensive use.

In composition and nutritive value mutton is practically the same as beef, and the average loss in weight in preparing the two kinds of meat for the table is also practically the same. yet mutton has for some time been a cheaper meat in our markets than beef. Buying in quantity is recognized as economical where the housewife has facilities for storage. There are many cases where a side of mutton could be economically purchased for home use where a side of beef would be too large for such a purpose. This would imply an economy in the selection of the mutton.

As regards digestibility, there is no practical difference in beef and mutton, both being very thoroughly assimilated. The characteristic flavor of mutton is commonly said to have its origin in the fat. It is generally relished and may be developed or modified by various methods of cookery to meet the tastes of the family. That mutton fat can be used in the household in many ways has been demonstrated by experiments which have been made with it.

The ways in which mutton can be prepared for the table are very numerous. Some of these are well known to the housewife, and others are less familiar. All are worthy of a trial, since the ability to make many dishes with any given foodstuff is an easy way of securing variety in the diet, which is so desirable. The housewife who wishes to economize can make many savory dishes from the inexpensive cuts of mutton, which are palatable as well as wholesome.

Judged by its composition, palatability, wholesomeness, digestibility, relative cost, and the number of ways in which it can be prepared for the home table, mutton is an important foodstuff, which is well worth the attention of the housekeeper who wishes to provide her family with an attractive and palatable diet at a reasonable cost.

The Department of Agriculture bulletin on mutton and its value in the diet was prepared by C. F. Langworthy, chief of nutrition investigations, office of experiment stations, and Caroline L. Hunt, expert in nutrition, who has had much experience in the study of scientific and practical problems relating to food. Miss Hunt made an extensive study of mutton cookery especially for this bulletin.

The Legal Force of the Wisconsin Decision

INTEREST in the Wisconsin corn syrup decision continues in evidence as the public has more opportunity to read and digest the opinion handed down by the supreme court in the case, as published in full in last month's issue. The effect which the decision has on state laws is vital, as its influence cannot fail to be felt in any similar case that might be instituted in a state which has food laws in conflict with the national Food and Drugs Act.

A letter written by Charles Wesley Dunn, a well known specialist on food laws, to the New York *Journal of Commerce* analyzes very clearly the meaning and application of the supreme court's decree, and because we know our readers will be interested in Mr. Dunn's explanation we publish below this letter. Mr. Dunn says:

I have received so many inquiries relative to the recent far-reaching decision of the United States supreme court in the Wisconsin corn syrup cases, interpreting the application of the Federal Food and Drugs act, that it seems that the application thereof is generally misunderstood. In view of the importance of this decision to the readers of the *Journal of Commerce,* I would ask you to publish this letter.

It must be borne in mind that the supreme court expressly reaffirms the doctrine established in the case of *Savage vs. Jones*, 225 U. S. 501. It is necessary to read these two decisions together in order to correctly understand the attitude of the court.

As stated in the analysis sent you, the court only condemns such state laws as frustrate or interfere with the operation of the act of congress. The question naturally arising is—when does a state law frustrate or interfere with the national law? What is the practical application of this general doctrine? Will any difference between a state and national law constitute such a conflict as will be condemned?

Let us examine the facts in the two decisions in point. In the Savage case above refered to the Indiana feeding stuffs law was in issue. This law required, among other things a statement of the ingredients contained in the feeding stuffs offered for sale and sold in Indiana. In the Federal Food and Drugs act congress has not required the statement of the ingredients, except in specific instances where morphine, etc., are present. Congress has, therefore, limited the scope of its requirements. That which the Indiana law required is not included in the national law. The court asks: "Can it be said that congress, nevertheless, has denied to the state, with respect to the feeding stuffs coming from another state and sold in the original packages, the power the state otherwise would have to prevent imposition upon the public by making a reasonable and non-discriminatory provision for the disclosure of ingredients, and for inspection and analysis." The court further remarks: "Undoubtedly congress, by virtue of its paramount authority over interstate commerce, might have said that such goods should be free from the incidental effect of a state law enacted for these purposes. But it did not so declare."

The court holds that the fact that congress has not required the ingredients to be declared, has seen fit to circumscribe its legislation and to occupy a limited field cannot lead to the conclusion that congress intended to supersede the exercise of the police powers by the state as to matters not covered by the federal legislation. Such an intent cannot be implied unless the act of congress is in actual conflict with the state law.

The test is—the repugnance or conflict must be direct and positive, so that the two acts, national and state, cannot be reconciled or consistently stand together.

Applying this test to the facts the court finds that the Indiana statute is valid, that the additional requirements are not in any way in conflict with the federal act. That the state law can be sustained without impairing in the slightest degree the operation and effect of the federal law. There is no question of conflicting standards or of opposition of state and federal authority.

In the Wisconsin corn syrup cases, recently decided, the label in issue had been expressly approved as a proper and legal label under the federal law. The Wisconsin law declared the label so expressly authorized under the federal law unlawful and prohibited the sale of this product so labeled by expressly providing that this product could only be sold or offered for sale by bearing its (the Wisconsin law's) exclusive label. The conflict between the national and state regulations is direct and positive and the two could not stand together, for, if the Wisconsin statute is valid then the label, legal under the federal act, is illegal under the Wisconsin act when the product is sold or offered for sale in Wisconsin, though still in interstate commerce when so sold or offered for sale.

Let us take an illustration showing a conflict which is direct and positive.

The federal act permits the use of benzoate of soda in catsup, or any food, if properly labeled to indicate that fact. Assume that the state law prohibits the sale or offering for sale of food containing benzoate of soda. Catsup containing benzoate of soda is shipped in interstate commerce to a retailer in a state who places the bottles of catsup on his shelves for sale at retail, properly labeled to conform to the federal law. Can the state law prohibit the sale of this catsup? The answer must be no. The state and national regulations are surely in direct and positive conflict and to sustain the validity of the state law would mean the absolute denying to the retailer the legal right to sell this catsup, although it is still in interstate commerce, subject to and conforming to the act of congress.

A conflict in standards of purity affords an open and shut example of a direct and positive conflict.

In considering the various differences in the labeling requirements the distinction or conflict is not always so clear.

Let us take, for the purpose of illustration, the net weight law applying to drugs. The federal act is silent in this respect, making no requirement that the net contents be declared on the label. The New York law, Chapter 81, Laws of 1912, requires such a statement in the case of all drugs—except as exempted—sold or offered for sale in New York. It cannot be doubted that the state of New York, assuming that there is no conflict with the national law, is entitled, in the exercise of its police power, to require such a statement. Such a situation appears to be on all fours with the situation disclosed in the Savage case, above. It can hardly be maintained that the two acts, national and state, cannot be reconciled and cannot consistently stand together. If the net contents is stated, as required by the state law, there will be no violation of the federal law or no overriding of any express or implied provision contained therein.

Turning now to the Gould amendment of the national law, requiring food to be labeled, with a statement of the net contents. Congress has expressly provided that no penalty of fine, imprisonment or confiscation shall be enforced for a violation of these provisions as to domestic products prepared prior to eighteen months after the passage, to wit, September 3, 1914.

Assume that various packages of Quaker Oats, for example, are shipped in interstate commerce to a retailer in North Dakota. The North Dakota law requires that the net contents be declared in the case of food sold in that state. The packages of Quaker Oats are not labeled to indicate the net contents. Is the state law invalid as a law in conflict with and repugnant to an act of congress in the light of the decisions of the court?

The distinction in this instance is not so apparent as in the illustrations given above.

Let us examine the situation. The national law requires the statement of the net contents as also the North Dakota law. So far as the affirmative requirements are concerned, the laws are in harmony. While the North Dakota law is now in force and effect, congress has declared that no penalty of fine, imprisonment or confiscation shall be enforced for any violation of the provisions of the federal law as to domestic products until September 3, 1914. Is the repugnance or conflict so direct and positive that these two laws, national and state, cannot be reconciled or consistently stand together?

Can it be said that congress has denied to the state the power the state would otherwise have to so regulate the sale of foods? Congress has not expressly declared that such goods shall be free from the incidental effect of a similar state law. Did congress intend by virtue of this exemption to supersede the exercise by the state of its police power?

Congress creates a situation which for practical purposes is on the same footing as if there were no federal law prior to September 3, 1914. Congress has acted but postpones the enforceable application of its enactment for some eighteen months, congress has expressly declared the law enacted under its constitutional power shall have no legal force for some eighteen months. There can be no question that on and after September 3, 1914, the North Dakota law will be valid. Can it be said that during the interim the state law may be declared invalid as a conflicting law? The North Dakota law, if enforced, does not impair the operation of any affirmative provision of the federal law. Making the same requirement these two laws can consistently stand together. The North Dakota law, therefore, is within its legitimate power and valid.

CHARLES WESLEY DUNN.

COLD STORAGE AND PRICES.

COLD storage in relation to prices is the subject of a recently issued bulletin prepared by George K. Holmes, Chief of the Division of Production and Distribution, Bureau of Statistics, Department of Agriculture. This is supplementary to a former bulletin in which business features of cold storage were treated. A large amount of information is presented bearing on the contention that the cold storage interests artificially raise the prices of commodities, and that the effect of the cold storage of foods has been to lower the annual level of prices paid for them by consumers and to make prices more uniform throughout the year.

The products embraced in the treatment of this bulletin are fresh beef, mutton and pork, and dressed poultry, butter and eggs. In the treatment of this subject, wholesale prices were ascertained as far back as 1880, and the whole period of 31 years covered by the price statistics is divided into two primary periods at 1893, the approximate time at which cold storage had grown to be important in its influence upon consumption. The cold-storage period beginning in 1893 and ending in the compilation of prices with 1911 is subdivided into two periods at 1902, for the purpose of making a group of the more recent cold-storage years, during which the business has reached its highest development. The first period covers 13 years and the second and third nine years each. A special compilation of prices of butter and eggs was made for New York City, including cold-storage goods.

One of the important efforts of the bulletin is to determine price levels and to indicate whether they have become higher or lower during the last period, in which cold storage had become prominent, than in the first period, which antedated the time when cold storage existed or, at any rate, had any influence upon prices.

In the determination of price levels for the periods of time, monthly prices are weighted according to the monthly consumption of the products, a notable departure from the customary procedure of adopting mean and unweighted prices, which must necessarily be misleading.

A double form of treatment is provided. In one of them the prices are expressed in cents, and consequently the participation, if any, of the prices of the commodities mentioned in the general upward movement of prices for all commodities involves an error; but this error is eliminated by treating prices in the form of monthly index numbers.

The withdrawal of commodities from consumption during the period of natural high production, and the placing of them in cold storage for increasing the consumption during the season of naturally low consumption, causes a redistribution of both consumption and prices, monthly, throughout the year. These redistributions have marked effect on the tendencies of price levels, although, as a matter of fact, actual prices, in cents, may not display the same tendencies. For instance, a cheapening of the cost of distribution may, in the course of time, reduce the annual weighted price of a commodity, although the changes in monthly prices and consumption caused by cold storage may have tended to increase the annual weighted price, and would have done so had not costs of distribution been cheapened.

The report states that "it is conclusive that both fresh and cold storage butter was sold in New York on a lower price level, in cents, in the last period than in the first, and this in spite of a tendency toward a higher price level, caused arithmetically by the monthly redistribution of consumption and prices, in the last period as compared with the first. In the case of eggs, the wholesale prices, in cents, were on a higher level in the last period than in the first, and there were also tendencies toward a lower price level in the case of fresh eggs and a higher price level in the case of cold-storage eggs, caused arithmetically by the redistribution of consumption and prices throughout the months of the year.

In addition to the special treatment of New York City, there is a general treatment of the United States in the matter of price levels. The prices obtained for this purpose extend back to 1880, and practically exhaust the resources of the Library of Congress and of the libraries of the executive departments.

Among the conclusions of the report are the following: "It is evident that when prices as expressed in cents are used, the price level of pork in the United States at large is found to have risen considerably in the last period as compared with the first.

"Apparently the price level of butter in cents in the United States has risen in the last period as compared with the first, although it has fallen in New York City. A much higher price level in cents is indicated for eggs in the last period than for the first."

In determining changes of price levels as indicated by index numbers instead of by cents, "a slight tendency toward a higher price level is indicated for fresh pork because of the monthly redistribution of consumption and prices, when the last period is compared with the first." For butter there is undoubted tendency toward a higher price level because of the redistribution of monthly consumption and prices throughout the year, and the same conclusion is made for eggs.

In a grand summary of results of the investigation of changes in price levels, the conclusion is expressed that "the general, but not invariable, rise of prices to a higher level, when prices are expressed in cents, readily appears; and also an almost invariable tendency toward a higher price level when prices are treated as index numbers, when the last period of years, extending from 1902 to 1911, is compared with the first period, which antedates the time when cold storage was of large account."

Another important topic of this report relates to the tendency toward, or away from, uniformity of prices throughout the year because of the introduction of cold storage. "If a portion of a product is withdrawn from consumption at a time of the year when production is relatively large, and released for consumption at a time of the year when production is relatively small, the academic logic of the proceeding is that prices will be raised during the period of natural surplus, and depressed during the period of natural scarcity, so that there will be in operation an equalizing force." The price statistics collected in this investigation permit a definite and conclusive answer to this question.

In the special investigation for New York City it appears that there has been a tendency from the first to the last period toward uniformity of prices of fresh butter through all of the twelve months of the year, and an unbroken tendency toward uniformity when the fresh butter of the first period is compared with the cold-storage butter of the last. A comparison of periods for fresh eggs finds a tendency toward uniformity of prices in eight months and away from uniformity in four months; and, if the fresh eggs of the first period are compared with cold-storage eggs in the last period, there is a tendency toward uniformity of prices in ten months and away from uniformity in two months.

In the treatment of this subject for the United States, the price quotation was taken for the first of each month and consequently 13 quotations were needed to cover a year. The conclusions of the report are these: "For fresh beef there was a tendency toward uniformity of prices for only 3 of the 13 months; for mutton for 9 of the 13 months; for pork for only 5 of the 13 months; for dressed poultry for 8 of the 13 months; for butter for 11 of the 13 months; and for eggs for 9 of the 13 months. The fact may be regarded as established that there is a general tendency toward uniformity of prices for four of the commodities mentioned and that there was a contrary tendency for fresh beef and fresh pork. It is therefore apparent that the contention of the cold-storage interests that cold storage has counted for uniformity of prices is largely true, but it is not true for all commodities nor for all comparisons of years and periods of years."

Inspection and Analysis of Graham Flour

By C. A. A. Utt, Asst. Food Analyst, Kansas State Board of Health.

THE first flour made from wheat was graham flour. The wheat, ground in a crude mill, made meal that was used for bread. As civilization advanced, bolting was introduced and there was a demand for whiter bread; hence, the old unbolted wheat meal was largely forgotten.

It remained for Sylvester Graham, early in the nineteenth century, to revive the manufacture of unbolted wheat meal, and advocate its use for bread. That his efforts and teachings bore fruit can be seen in the fact that this product bears his name.

Graham flour according to him and modern pure food laws is "unbolted wheat meal." It is simply the wheat ground into meal without anything added or taken away. It contains all the elements of the whole wheat, and has not been subjected to any bolting or regrinding in the progress of manufacture.

Because graham flour was first made by grinding on stone burrs, many think that the best graham flour is still made in this way. Modern methods have introduced the iron burr and the roller mill. Wheat may be ground into meal by burrs or rolls and so long as it is unbolted it is graham flour.

Millers found in grinding wheat for patent flour, certain end products, such as bran, shorts, and low grade flour, that could be combined to resemble the original graham flour. Thus, for a time, and the practice continues in many mills, graham flour was not unbolted meal but a mixture of many things, some of which are usually sold for cattle feeds. There was more money in disposing of these products in the graham flour than in selling them for stock feed. A portion of the best part of the wheat kernel, the middlings, was by this method removed and made into patent flour.

Other mills ground the wheat, bolted the meal, and endeavored to mix it afterwards. In this way all the elements of the original wheat were represented in the final product, but this was not unbolted wheat meal.

In determining the origin of graham flour a chemical analysis alone is of little value. It may reveal the fact that all the elements of the original wheat are present, but it will not show whether or not the meal has been subjected to bolting.

Pure, unbolted wheat meal consists of bran, middlings and white flour. The amount and character of these products depends upon the methods of grinding and the kind of wheat used.

Grinding on stone burrs, iron burrs, or rolls, will give somewhat different end products, both in quality and quantity. Hard wheat and soft wheat also give different products. Many millers grind soft wheat for graham flour because they think it makes the best flour.

At the Kansas State Agricultural College we have found that the best way to determine the origin of graham flour is to separate it into the bran, middlings and white flour by means of bolting, and examine the various resulting products. For this purpose a shaking frame is used, containing five sieves made from millers' silk bolting cloth. These sieves, counting from top to bottom, are numbers 30-44-50-70-10. That is the bolting cloth used on these sieves is known to the millers by these numbers.

A kilogram of the graham flour is placed in the top sieve and subjected to shaking. The bran collects on 30, the very coarse middlings on 44, the coarse middlings on 50, the fine middlings on 70, and the very fine middlings on 10. What goes through 10 is classed as white flour.

When the separations have been made the amounts are determined by weighing, and their character by examination.

The bran, if the wheat is ground on a burr, is usually large and flaky. If ground on rolls, it very often presents a granular, chopped up appearance. Soft wheat usually produces a large, flaky bran; this, however, depends somewhat upon the method of handling the wheat. Bran from both hard and soft wheat contains considerable white flour. This clings so tenaciously to it, that a clean separation is impossible. A meal made from hard wheat, bolted, reground, and remixed, gives a bran uniformly brown in color, and with very little white flour clinging to it.

The middlings vary from very coarse to very fine. The very coarse middlings contain some of the outer part of the wheat; consequently they are somewhat brown in color and quite granular. The finer middlings are white in color and present much of the appearance of the well known "Cream of Wheat." Hard and soft wheat middlings have practically the same appearance.

GRAHAM FLOUR

Sample Number	Kind of Wheat Method of Mfg.	Bran	Middlings On Sieve 44	50	70	10	Total Middlings	White Flour	Remarks
5590	*R-H	33.4	23.0	5.6	13.5	10.0	52.1	14.5	Bran, middlings, flour, coarse ground.
5591	R-H	10.0	10.0	4.0	16.0	23.0	53.0	37.0	Bran clean, bran, shorts and 2nd clear flour.
9728	*B-S	2.0	7.5	3.5	10.5	17.0	38.5	59.5	Bran, middlings, flour.
9729	R-H	13.0	13.0	7.5	22.5	18.0	61.0	26.0	Bran, middlings, flour.
6677	R-H	10.5	7.5	4.5	22.5	25.0	59.5	30.0	Bran, middlings, flour.
6683	R-S	16.5	6.5	3.5	13.0	16.0	39.0	44.5	Bran, middlings, flour.
6684	R-H	19.0	2.5	1.0	1.0	3.5	8.0	73.0	Bran, shorts, low grade flour.
X	R-H	14.0	16.0	9.0	24.0	17.0	66.0	20.0	Bran, middlings, flour.
5593	R-H	10.0	5.0	4.0	26.0	23.0	58.0	32.0	Bran, middlings, flour.
5594	B-H	5.0	20.0	8.0	13.0	8.0	49.0	46.0	Bran, middlings, flour.
5596	R-H	0.2	0.5	2.3	2.9	32.5	38.4	61.6	Bran, removed, bolted, reground.
9765	R-H	16.0	4.0	1.0	2.0	2.0	9.0	75.0	Bran, shorts, flour.
9766	R-H	1.0	1.5	1.0	2.0	1.5	6.0	93.0	Bran, shorts, flour.
6708	R-H	16.0	18.5	11.0	20.0	10.0	59.5	25.5	Bran, middlings, flour.
70119	R-H	15.0	16.0	10.0	21.5	15.0	62.5	22.5	Bran, middlings, flour.
70120	R-H	17.5	21.5	11.0	17.0	9.0	58.5	24.0	Bran, middlings, flour.
70121	R-H	20.0	17.0	9.0	18.5	14.0	58.5	21.5	
70122	R-H	10.0	10.0	3.5	5.0	4.0	22.5	67.5	Bran, shorts, flour.
70123	R-H	24.0	17.0	5.0	11.5	14.0	48.5	28.5	Bran, middlings, flour.
70124	R-H	12.5	0.0	0.0	0.0	0.0	0.0	87.5	Bran and flour.
6726	R-H	7.0	10.0	4.0	17.0	27.0	58.0	35.0	Bran, middlings, flour.
6729	R-H	13.0	8.0	1.0	3.0	5.0	17.0	70.0	Bran, shorts, flour.
6730	B-S	1.0	14.0	6.0	18.0	14.0	52.0	47.0	Bran, middlings, flour.
90059	R-H	10.0	8.0	3.0	24.0	28.0	63.0	27.0	Bran, middlings, flour.
90060	B-H	13.0	6.0	3.0	12.0	21.0	42.0	45.0	Bran, middlings, flour.
90061	R-H	17.0	13.0	5.0	12.0	16.0	46.0	37.0	Bran, middlings, flour.
90062	R-S	32.0	17.0	6.0	10.0	7.0	40.0	28.0	Bran, middlings, flour.
9776	B-	14.7	12.5	5.0	12.3	17.5	47.3	38.0	Bran, middlings, flour.
....	B-S	11.5	6.2	2.8	13.0	20.0	42.0	46.5	Bran, middlings, flour.
6716		10.0	10.0	5.0	12.5	18.0	45.5	44.5	Bran, middlings, flour.
6717		10.0	12.5	8.0	22.5	21.0	64.0	26.0	Bran, middlings, flour.
6718		13.5	6.0	1.5	6.0	26.0	39.5	47.0	Bran, middlings, flour.
70141		6.0	22.5	14.0	24.5	15.0	76.0	18.0	Bran, middlings, flour.
70142		14.0	10.0	5.0	12.5	27.5	55.0	31.0	Bran, middlings, flour.
70143		12.5	17.0	5.5	7.0	3.0	32.5	55.0	Bran, middlings, flour.
70147		6.5	17.0	8.0	12.5	10.0	47.5	47.0	Bran, middlings, flour.
70153		13.0	0.0	0.0	0.0	0.0	10.0	87.0	Bran and flour.
70156		18.0	16.0	10.0	12.0	24.0	62.0	24.0	Bran, middlings, flour.
70157		7.5	12.5	9.0	27.0	19.0	67.5	25.0	Bran, middlings, flour.

*B=Burr mill.
*R=Roller mill.
*H=Hard wheat.
*S=Soft wheat.

The analyist will find shorts instead of middlings if the graham flour has been made by bolting and mixing. This shorts varies in grade from coarse brown shorts to fine white shorts, which can be distinguished by its rather fluffy, smooth appearance and lack of granulation.

The flour obtained is a fair grade of white flour. It contains some of the small, dark particles of the wheat that come through in bolting, but it does not have the uniform gray, fluffy appearance of low grade flour.

A clean bran, fluffy, shorts-like middle products, and a gray, fluffy flour indicates that the meal has been made up of bran, shorts, and low grade flour. Sharp, flaky, bran, granular middlings with a good proportion of clean flour indicates that the meal is unbolted.

The annexed table shows the results obtained on samples taken by the pure food inspectors in Kansas, and worked through on the lines indicated. It represents the percentages of the different products obtained on the various sieves, also in nearly every case the method of grinding and kind of wheat is shown.

SUMMARY.

Unbolted wheat meal made on rolls yields the following products:

Bran—7 per cent to 33.5 per cent; average 17 per cent.

Middlings—40 per cent to 63 per cent; average 52 per cent.

White flour—14 per cent to 46 per cent; average 29 per cent.

If the wheat is ground on burrs the yield is somewhat as follows:

Bran—1.0 per cent to 13.5 per cent; average 4.5 per cent.

Middlings—38.0 per cent to 52 per cent; average 45 per cent.

White flour—45 per cent to 59.5 per cent; average 49 per cent.

Comparing the two methods of grinding, the proportion of white flour is larger in the graham flour gorund on burrs; the middlings are a trifle less, and also the bran. The greatest differences are seen in the bran and white flour.

CONCLUSIONS.

1. The origin and purity of graham flour can be determined with certainty by separating it into the bran, middlings, and white flour of which it is composed.

2. These separations, though varying somewhat in quantity are quite uniform in quality and with a little experience the analyst can pass judgment with a fair degree of accuracy.

The author wishes to express his appreciation and thanks to Professors J. T. Willard, C. O. Swanson and L. A. Fitz for suggestions in carrying on this work.

THE PACKING INDUSTRY OF CHICAGO.

By Ervin L. Roy.

FIFTY years ago, in what was then described as "the packing season," there were received in Chicago approximately 700,000 hogs and 42,000 cattle.

In 1912 receipts of live stock were approximately 8,000,000 hogs; 2,650,000 cattle; 500,000 calves; 6,000,000 sheep, a total of 17,150,000 in 250,000 cars, valued in round figures at $370,000,000, or over $1,000,000 per day; and it may be of especial interest to know that this million dollars every day was paid in cash.

Everybody knows that the packing industry of Chicago is large—tremendously large. But not everybody realizes its real magnitude and what it means to Chicago.

In one square mile of territory at "the Yards," including the Stock Yards proper and the great packing houses adjoining, there are employed more than 40,000 people, representing a population of 200,000, if you figure, as is usually done, an average family of five, for each man employed.

This is a city in itself, and the estimate takes no count of additional thousands—merchants and trades people in various lines—whose business is created by the requirements of this population supported directly by the packing industry. Neither does it include the live stock raisers who come to the yards to market their products. Approximately 1,200 agriculturalists come to Chicago daily with consignments of cattle, sheep and hogs.

The Chicago live stock market is the greatest market of any kind in the world.

Packingtown is the greatest manufacturing town in the world.

There is no corner of the earth where the products of Packingtown are unknown, no habitable place so remote from civilization that you cannot get goods bearing the brand of Chicago packers.

Of the $370,000,000 in live stock sold annually at the Yards, $300,000,000 is utilized in Packingtown. To this $300,000,000 in raw material, there is added $90,000,000 in labor and manufactured value, the wholesale value of the various products of Packingtown being $390,000,000.

This business is carried on with a capitalization of $300,000,000, the packing houses of Chicago owning important plants in many other American cities and in foreign countries. Chicago, therefore, is the biggest factor in the packing industry of the world, through the pre-eminence of its packing plants and the wonderful scope of the business of which this city is the center.

It is to be noted that while the packing industry has had a large share in the development of Chicago, and has added a large measure to the prosperity of the city, the profits of the packing industry represent a surprisingly small margin of the total value of the products handled and are the result of scientific and efficient methods of manufacture and the complete utilization of the by-products of the business.

It may be said without fear of contradiction that the packing industry is not only one of the greatest, but one of the most efficient of the world's industries.

Of the 17,150,000 live animals received in 1912, 13,000,000 were slaughtered in Chicago. The others were purchased for shipment to packing houses in other cities.

The farmer who sends his stock to Chicago consigns it to a commission man in the Union Stock Yards, where the market is an open one. Buyers employed by Chicago packing houses are competing with buyers for packing houses in the North, South, East and West. But, regardless of the outlet, the commission man's scale ticket, with weights, prices and total amount becomes at once a sight draft on the buyers, and that scale ticket is so accepted by the banks.

This method of marketing is probably the most important feature of any connected with the packing house business. Inasmuch as a plant cannot operate without adequate supplies—and also because of the fact that this ready market furnishes an incentive to the live stock raiser and makes for his prosperity—with the farmer prosperous we can usually rely upon prosperous manufacturers; and it is not amiss to point out here how much benefit the making of the "Chicago Market" has been, is, and will continue to be to the farmers of the West.

Chicago makes the live stock market every day in the year for the United States, and whether the farmer ships here or elsewhere, he will receive approximately Chicago prices, based on the freight rate differential.

It is interesting to note the wonderful growth of this industry from the days when no packing was done outside of the winter months—when nature furnished the only refrigeration—to the present day of ice machines, which makes it an all-year-round business; from the days when by-products were a liability (because it was necessary to haul them away and bury them) to the present time when by laboratory research and constant experiment, these same by-products are now without exception utilized.

The results of this study not only afforded an outlet for the product formerly wasted, but created practically new industries. It was discovered, for instance, that there could be manufactured from the blood, a poultry food of value, and from the bones, ground to powder, a food for live stock. Horns and bones are used in the manufacture of pipe bits, buttons, cane and umbrella handles, hairpins and countless novelties.

Another important branch of a modern packing plant is the fertilizer department. In that department the tankage and refuse are converted into fertilizers, which go back to the farmer to renew the strength of the very land from which those fertilizers were shipped as live stock.

There is practically no meat food in the world—no matter where or how prepared—that a Chicago packer cannot duplicate, and the demand for Chicago products (which at times is so great that the supply becomes inadequate) is the best testimonial of merit. Our packers prepare in a sanitary plant, under United States Government inspection meats for every nation under the sun, shipping them in a refrigerator car to a branch house or jobber, if for the United States' trade; while if they are to be exported, the refrigerator car goes to the seaboard, the meats are transferred to refrigerators in the steamer and not many days later Chicago is helping to feed Europe, Asia or Africa.

To attempt even in the briefest manner a description of the trades allied to the packing business would require a separate report for each. The hide business, soap business, and the manufacture of boxes, cans, paper, cooperage, twines, ropes, sugar, spices and innumerable other articles, all enjoy a volume of trade with and through the packing houses which is enormous.

Official Program of the Seventeenth Annual Convention of the Association of American Dairy, Food and Drug Officials

To be Held at Mobile, Alabama, June 16 to 20, 1913.
Headquarters: Battle House. Place of Meeting: Battle House Auditorium.

OFFICERS OF THE ASSOCIATION.

President, L. Davies, Washington.
First Vice President Willard Hansen, Utah.
Second Vice President, W. B. Barney, Iowa.
Third Vice President, Niels P. Hansen, Nebraska.

Executive Committee.

The President and Secretary; W. P. Cutler, Missouri; H. E. Barnard, Indiana; J. H. Wallis, Idaho.

Other Standing Committees.

On Co-operation—Dr. S. J. Crumbine, Kansas; Hon. A. H. Jones, Illinois; Dr. M. E. Jaffa, California.

OFFICERS OF SECTIONS.

Section A—Hon. James Foust, Pa., Chairman; M. E. Jaffa, Cal., Vice Chairman; W. B. Barney, Iowa, Secretary; Frank A. Jackson, R. I., Treasurer.

Section B—William Frear, Pa., President; J. R. Chittick, Iowa, Vice President; T. J. Bryan, Ill., Secretary & Treasurer.

GENERAL ANNOUNCEMENTS.

The constitution as finally ratified and adopted at our sixteenth annual convention at Seattle provides for two sections.

The opening session will be Monday night, June 16, at 8 P. M. for addresses of welcome and President's annual address. The 17, 18, 19 and 20 will be given up to general work of the convention, except two half days, Tuesday and Wednesday afternoons, when the sections will meet.

All meetings will be held at the Auditorium of the Battle House.

At the suggestion of many members of the Association the Executive Committee recommends comparatively short papers, two members being designated in each case to take part in discussions, after which it is hoped to have a full discussion for the time allowed with opportunity for the member presenting the paper to close, if he desires. It is thus hoped to encourage a full and free discussion of every topic presented.

PROGRAM.

MONDAY, JUNE 16, 1913.

8 P. M.

Association Convenes.

Address of Welcome on Behalf of the State—His Excellency, Emmet O'Neal, Governor of Alabama.

Address of Welcome on Behalf of City—Hon. Laz Schwarz, Mayor of Mobile.

Address of Welcome on Behalf of Chamber of Commerce and Business League—Hon. William H. Ambrecht, President.

Response to Addresses of Welcome—Hon. Geo. L. Flanders, of New York.

President's Annual Address.

TUESDAY, JUNE 17.

10 A. M.

Meeting of General Association.

Enrollment.

Report of Standing Committees:

(a) Executive Committee.
(b) Committee on Co-operation.
(c) If any other.

Report of Secretary.

Report of Treasurer.

Appointment of Special Committees.

1—Best Methods for Supervision of Wholesomeness of Materials Used by Bakeries, Restaurants and Eleemosynary Institutions, Prof. Chas. D. Howard, In Charge Food Work, New Hampshire.

To open discussion, Dr. E. F. Ladd, North Dakota.

Followed by Dr. Oscar Dowling, Louisiana.

2—Cold Storage, Hon. Wm. P. Cutler, Dairy Commissioner, Missouri.

To open discussion, Hon. W. M. Allen, North Carolina.

Followed by Hon. Maurice Groshon, Wyoming.

TUESDAY, JUNE 17.

1:45 P. M.

Section A—Dairy, Food and Drug Officials.

1—Address of President of Section A, James Foust of Pennsylvania, followed by reports of Secretary and Treasurer.

2—The Legislature the Food Commissioner's Greatest Difficulty, James H. Wallis, Idaho.

General Discussion.

3—Some Difficulties an Executive Meets in Discharging His Duties, Lucius P. Brown, Tennessee.

General Discussion.

4—Difficulties in the Organization of the Administrative Forces, J. W. Helme, Michigan.

General Discussion.

5—Principles That Should Govern the Relations Between the Food Commissioner and the Chemical Laboratory When the Latter is a Separate Institution, H. F. Potter, Connecticut.

General Discussion.

6—What Difficulties in the Administration of State Food Laws Arise from the National Food Law, and How May Such Difficulties be Obviated? Has. H. Woods, Maine.

General Discussion.

Program of Section B—Analysts.

1—Address by President of Section B, Dr. Wm. Frear, Pennsylvania.

2—Constants of Sugar Vinegar, Wm. H. Harrison, Illinois.

3—Iodin Value of Normal and Abnormal Lards, Elton Fulmer, Washington.

4—A Rapid Method for Routine Specific Gravity Determination, J. R. Chittick, Iowa.

5—A Reichert-Meissl Distillation Stand, D. T. Gunning, Illinois.

6—Round Table—Laboratory Troubles.

TUESDAY, JUNE 17.

8 P. M.

Meeting of General Association.

1—Address, Hon. David Franklin Houston, United States Secretary of Agriculture, Washington, D. C.

2—Sanitation, Dr. Oscar Dowling, Louisiana.

WEDNESDAY, JUNE 18.

9 A. M.

Meeting of General Association.

1—Should Federal and State Laws Recognize and Allow Sub-Standardization of:

(a) Drugs—

Dr. L. F. Kebler, Chief of Drug Laboratory, United States Department of Agriculture, Washington, D. C.

To open discussion, Dr. F. E. Rose, Chemist, Florida.

(b) Foods—

Hon. Frank A. Jackson, Rhode Island.

To open discussion, A. E. Frantz, M. D., Delaware.

2—The Legitimate Scope of the Work of this Association and to What Extent, if Any, it is Entitled, As it is Formed to Criticise the Action of Individual States in Relation to Legislation and Administration of Food and Drug Laws, Dr. S. J. Crumbine, Chief Food and Drug Inspection, Kan-

To open discussion, Hon. J. Q. Emery, Wisconsin.

Followed by Hon. R. M. Allen of Kentucky.

3—Production of Wholesome Milk—Theory vs. Actual Practice, Hon. W. B. Barney, Iowa.

To open discussion, Ernest Kelly, Washington, D. C.

Followed by Hon. Willard Hansen, Utah.

WEDNESDAY, JUNE 18.

1:45 P. M.

Section Meetings.

Section A—Dairy, Food and Drug Officials

1—Difficulties of the Sanitary Inspector, J. F. Tilford, Kansas.

General Discussion.

2—Practical and Effective Methods for Milk Inspection, R. M. Allen, Kentucky.
3—The Relative Advantages of State and Municipal Milk Inspection, Wm. B. Saunders, Virginia.
General Discussion.
4—The Working of the Minnesota Anti-Discrimination Law, Joel G. Winkjer, Minnesota.
General Discussion.
5—Round Table Conference, "The Program."
Election of Officers.
Other Section Business.

PROGRAM OF SECTION B—ANALYSTS.

7—Paper by M. E. Jaffa, California (Subject to be announced later).
8—A Carbide-Dioxid Apparatus for CO_2 in Baking Powder, B. H. Harrison, Illinois.
9—A Method for Determining the Percent of Oil in Extract of Peppermint, G. H. Chittick, Iowa.
10—The Water Content of Oysters, F. L. Shannon, Michigan.
11—Round Table—Expert Testimony.
12—Election of Officers.

THURSDAY, JUNE 19.
9 A. M.

Meeting of General Association.
1—Collaboration Between the United States Department of Agriculture and State Officials—Its Meaning and Extent, Dr. Carl Alsberg, Chief Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.
To open discussion, Hon. J. S. Abbott, Texas.
Followed by Hon. H. F. Potter, Connecticut.
2—The Fat Standard as a Substitute for the Water Standard for Butter, Dr. J. H. Frear, Chemist, Pennsylvania.
To open discussion, Hon. G. E. Patrick, Chief of Dairy Laboratory, Washington. D. C.
Followed by Hon. Joel G. Winkjer, Minnesota.
3—To What Extent Should the Functions of the State Departments Charged with the Enforcement of the Dairy, Food and Drug Laws Be Regarded as Educational? How May the Educational Function Be Best Performed? Dr. Lucius P. Brown, Tennessee.
To open discussion Prof. Edwin DeBarr, Oklahoma.
Followed by Prof. R. E. Stallings, Georgia.

THURSDAY, JUNE 19.
1:45 P. M.

Meeting of General Association.
1—Editing Questions and Answers and Comments Thereon, Hon. James H. Wallis, Idaho.
Discussion by all Commissioners.
2—Should the Drug Stocks of Dispensing Physicians Be Inspected? If So, What Ways and Means Might Be Legally Adopted to Carry Out Such Inspection? Hon. Chas. Caspari, Jr., Maryland.
To open discussion, Dr. R. B. Fitz-Randolph, New Jersey.
Followed by Hon. Guy C. Frary, South Dakota.
3—Milk Supply of Cities and Towns, Hon. B. H. Rawl, Chief Dairy Division, Washington, D. C.
To open discussion, Hon. H. F. Potter, Connecticut.
Followed by Hon. John Newman, Ass't Comm'r, Illinois.
Meeting of General Association.

FRIDAY, JUNE 20.
9 A. M.

Meeting of General Association.
1—Net Weights and Measure Laws—and Should These Laws Be Enforced Through the Same Department Having Food and Drug Control Work or Through Some Other Agency? Hon. A. H. Jones, Illinois.
To open discussion, Hon. James Foust, Pennsylvania.
Followed by Hon. J. Q. Emery, Wisconsin.
2—What Should Be the Attitude of Food Officials, Charged with Such Duties, Towards the Supervision of Sanitary Conditions and of Food Served in Dining Cars, Restaurants, Hotels and Eleemosynary Institutions? Hon. Geo. L. Flanders. New York.
To open discussion, Hon. Chas. D. Woods, Maine.
Followed by Hon. James W. Helme, Michigan.
3—Sanitary Food Law—and the Use of the Score Card in Sanitary Inspection of Food Producing and Food Distributing Establishments. Hon. H. E. Barnard, Indiana.
To open discussion Dr. G. B. Taylor, Louisiana.
Followed by Hon. Clarence E. Harman, Nebraska.

FRIDAY, JUNE 20.
1:45 P. M.

Meeting of General Association.
1—Is Legislative Enactment of Food Standards Advisable?
Hon. Wm. C. Woodward, District of Columbia.
To open discussion, Dr. Sanford C. Dinsmore, Nevada.
Followed by Hon. Wm. D. Saunders, Virginia.
2—How Great a Variation from Fixed Standards of Food, Drug and Dairy Products, if Any, Should Be Allowed Without Condemnation? Dr M. E. Jaffa, California.
To open discussion, Hon. Chas. D. Woods, Maine.
Followed by Dr. H. E. Barnard, Indiana.
Report of Resolution Committee.
Election of Officers.
Miscellaneous Business.
Adjournment.

NEW ASSOCIATION SECURES DR. CUTLER.

Dr. W. P. Cutler, until recently State Food and Dairy Commissioner of Missouri, and now State Dairy Commissioner of that state, is one of the latest of well known food control officials to be tendered flattering positions by non-official interests. There has just been organized the American Manufacturers' Association of Products from Corn, one of the chief objects of which is to educate the public in reference to the valuable qualities of products manufactured from corn. Immediately upon completion of organization of the new association Dr. Cutler was communicated with and induced to accept the office of secretary, and he will assume the duties of his new position on July 1. The headquarters of the association are located at Chicago, which will necessitate a change of residence on the part of Dr. Cutler.

The American Manufacturers' Association of Products from Corn is certainly to be congratulated in securing the services of Dr. Cutler in capacity of secretary, as his experience is of a wide and varied character especially fitting him for the duties he will assume in that capacity. Dr. Cutler was engaged in food inspection work in Missouri for nine years, and served four years as State Food and Drug Commissioner, while he is also a physician of twenty-five years' experience. He is a gifted speaker and as a popular Chautauqua lecturer has gained a wide reputation and acquaintance throughout the country.

Dr. Cutler as a state food commissioner represented the best type of official in that difficult and exacting field. He was always fair and square in all his work and rulings, keeping in mind the rights of the public and all other interests affected. It is men of such character who are offered the best positions when open, and we congratulate Dr. Cutler on his selection as secretary by this new association, which position we understand carries with it a handsome salary.

HEADS DEPARTMENT OF HEALTH OF FRATERNAL UNION.

The Fraternal Union of America recently established a department of health for the prevention of disease and preservation of life. As the first head of that department Wilbur F. Cannon of Denver, Colorado, has been selected. Mr. Cannon is splendidly equipped for the duties of his new office as he has long been identified with health and sanitation work in Colorado, as well as with food law making and enforcement. He was the author of the pure food and drug laws of Colorado and of the present law of sanitary regulation of slaughter houses and sales of meats. Mr. Cannon was the first pure food commissioner of Colorado, and because of his fine record was appointed to a second term although of opposite political faith to the appointing power. At the expiration of his second term the then Secretary of Agriculture, James Wilson, named him as a member of a committee to bring about co-operation in the administration of the pure food laws of the various states with that of the federal government.

Mr. Cannon is a gifted writer and thoroughly familiar with the subject of health preservation, and will conduct "The Department of Health," in *The Fraternal Union*, which is the official organ of the Fraternal Union of America, which is published monthly by the Supreme Lodge, issuing from Denver, Colorado.

FOREIGN ORANGES NOT WANTED.

Fruit importers who recently made a test of the New York market as to its capacity for absorbing foreign oranges report that the attempt to establish a market for them was unsuccessful and that no more will be brought in. About 15,000 boxes were imported from Catania for the test, and though the fruit was good, it sold at from 75 cents to $2 per box. At such prices there was only loss for everybody concerned and the effort to establish a business has been abandoned.

Notices and Circulars from Official Departments

REVISION OF FOOD AND DRUG REGULATIONS OF LOUISIANA.

The new food and drug regulations of the state of Louisiana were adopted in printed form at the regular meeting of the Louisiana State Board of Health on May 19, 1913.

These regulations were adopted as revised on February 26, 1913, and after the final adoption on May 19 must be promulgated, and thirty days will elapse before they have the effect of statutes. The board of health has, therefore, made them effective July 1, 1913.

The new regulations are printed together with the Louisiana food and drug laws in a neat thirty-one page pamphlet, four-by-eight inches. They are thoroughly indexed and it will be easy for any one to find immediately any regulation in the book.

This revision represents careful work for the last two years, and these regulations contain the best of the old regulations, ideas along food and drug lines from other states, keeping in mind constantly that uniformity with the United States food and drugs act and regulations must obtain.

These regulations have authority under the Louisiana Supreme Court's ruling in the following cases: *State v. Snyder; Board of Health of the State of Louisiana v. Adolph Susslin.*

The following are a few of the principal features in the new regulations not covered by the old regulations:

1. Interference of right of entrance into places covered by regulations constitutes a violation.
2. Right to seize made clearer.
3. Guaranty is recognized.
4. Misbranding includes false or fraudulent statement as to curative effect of medicines.
5. Standards—All government standards not in conflict with state standards are adopted.
6. Baking powder must have 10 per cent available carbon dioxide.
7. The addition of benzoate of soda is limited to one-tenth of 1 per cent.
8. Ice cream standards adapted to Louisiana conditions.
9. Only Pharmacopœia and National Formulary standards for drugs allowed.
10. Refilling of prescriptions.
11. List of drugs forbidden to be sold except by prescription.
12. Cold storage. These regulations are taken from the model law advocated by the American Dairy, Food and Drug Officials. They require licensing, inspection and sanitation of plants; quarterly reports by cold storage houses; marking of food with date of entrance into cold storage and date of withdrawal; limiting the time of storage, and selling goods by retailers as cold storage goods. These regulations cover meat and meat products, fresh food fish, game, poultry, eggs and butter.

The present regulations are believed to be modern in every respect except as to statements of weight and measure, which must come by act of legislature, as the Food and Drugs Act does not include this in giving powers to the state board of health. A law in uniformity with the latest amendment to the United States Food and Drugs Act will be introduced into the next legislature.

TEXAS RULES FOR BAKERS.

The Food and Drug Department of Texas recently made the following ruling for the guidance of bakers:

Section 2 of the Texas Food and Drug Law provides that all articles of food be securely protected from flies, dust, dirt and other injurious contaminations. The following methods of handling bread should be adopted by you in order to comply with this section of the law.

These rules have been adopted by the Master Bakers of Texas in convention assembled, which fact shows that the bakers themselves consider them to be reasonable and just.

(1) The delivery wagon, auto, or vehicle must be equipped with door or curtains, both front and back, so that the bakery products are securely protected from dust and flies. If ventilation is necessary, this can be provided by having small holes in the front and rear doors near the top, but these small holes must be covered with screen wire.

(2) At the end of each day's run, the wagon must be thoroughly brushed out inside, so as to remove all crumbs, dust, etc., and then allowed to air.

(3) At least once a week the wagons must be thoroughly scoured with hot water and soap powder.

(4) No one but a healthy person shall be permitted to be a driver of a vehicle for the delivery of bakery products. The driver of a bakery wagon should be neat and clean in his dress, not necessarily uniformed.

(5) The proprietor of the bakery must supply the delivery man with a clean basket, tray, or other receptacle, which is to be provided with a cover or some means of protecting the bread while it is being transported from the wagon to the customer.

(6) The proprietor of the bakery must supply the driver with a pair of gloves for the handling of bakery products. The gloves are to be washable cotton gloves, and a clean pair to be supplied the driver each morning. When driving gloves are used, in no case shall they be worn when handling bakery products.

(7) Bread that is wrapped in oiled paper need not be handled as outlined above.

J. S. Abbott.
Food and Drug Commissioner.

TOMATOES PACKED WITH PUREE.

In bulletin No. 13 issued by authority of the executive committee of the National Canners' Association, May 3, is found the following report on the above subject:

This office recently addressed a communication to the Board of Food and Drug Inspection as to the proper labelling of tomatoes packed with the puree made from the by-product. In answer to the same the board says:

"It is the belief of the board that puree when added to canned tomatoes is in the nature of an adulterant and can be so demonstrated. Notwithstanding this fact, if puree is manufactured in a manner so as to produce a pure and wholesome product, if it is not made from whole tomatoes, and the word 'puree' is modified by a plain statement of the material used in its manufacture and the label is free from any pictorial design or device, as tomato fruit, which tends to give a false inference as to its source and to its composition, the board sees no objection to its sale, but the word 'tomatoes' should not appear upon the label in equal or greater prominence than the word 'puree.'"

It should be borne in mind that in interpreting the above opinion the label must be free from any pictorial device representing the whole tomato, as this might be misleading to the consumer.

The definition of the term "puree" should also be carefully considered. Webster's dictionary says puree is a dish made by boiling any article of food to a pulp and rubbing it through a sieve; as a puree of fish or potatoes; especially a soup, the thickening of which is so treated.

From the above it is seen that puree is the solid portion of the product pulped either before or after considerable evaporation has taken place.

This ruling of the board must not be taken to in any sense modify the requirements as set forth in F. I. D. 144, where it was stated that in the opinion of the board the addition of pulp to tomatoes constitute adulteration; but it is permitted to pack tomatoes with puree, provided they are not designated as tomatoes, and there is no pictorial device which would indicate that the contents of the can are tomatoes.

NO MORE "REJUVENATED" CREAM IN MINNESOTA.

No more "rejuvenated" cream can be sold in Minnesota. The new law prohibiting the use of a neutralizer to make bad cream fit for use is now in the hands of the state dairy and food commissioner for enforcement, says the *St. Paul News*. The state dairy and food department has had more work added to it through the enactment of new laws than any of the other departments, and its annual appropriation has been decreased $10,000 by the turning in of fees to the revenue fund.

NEBRASKA SANITARY ORDER.

The Food, Drug, Dairy and Oil Commission of Nebraska has issued the following order affecting the distribution of unwrapped bread and pastry.

I would respectfully call your attention to Section 9840x9 of the Nebraska Sanitary law, which says that the distribution or sale of food stuffs must be conducted in such a manner as not to be detrimental to character or quality of such food.

I therefore deem the delivery of unwrapped bread and pastry to be in violation of the above section of the law.

You are therefore ordered to discontinue the practice of delivering, distributing or conveying any bakery products not in sanitary wrappings. It will not be necessary to wrap all the bread sold in the original place of manufacture but it will be necessary to wrap all bread and other bakery products if delivered to any point or place outside of the place of manufacture.

It has come to the notice of this department that wagons used in the distribution of bakery products are often stored in places where conditions are not entirely sanitary. Each bakery wagon, therefore, when not in use should be put in a good, clean, sanitary place and the wagons kept in the best possible sanitary condition.

Each driver of bakery wagons who distributes these products must wear clean clothes.

To conserve the health of the consumer it is necessary that bread and other bakery products should be produced, wrapped and handled under the best conditions possible.

Any one violating or failing to comply with the above order shall be deemed guilty of a misdemeanor and be punished as provided by law.

CLARENCE E. HARMAN,
Deputy Commissioner.

POINTS FOR CONSUMERS IN BUYING MEATS.

The health inspectors of Philadelphia have issued a warning to consumers concerning points to remember when buying meat, poultry, etc., especially in hot weather, when spoiled products are more apt to be encountered. The suggestions are equally applicable to consumers all over the country and we are accordingly publishing them for the benefit of our readers:

"Buy only fresh meat. Beef should be a rosy red color, with cream-colored, firm, elastic fat, and scarcely moist when touched with the finger. Do not buy wet, flabby beef that is pink or purple. Good lamb or mutton is firm, close-grained and light red, with fat that is white and hard.

"Do not eat raw meats of any kind. Cook all meats thoroughly, especially Hamburg steak and pork, as cooking kills nearly all germs that may be present. Do not buy Hamburg steak unless it has been freshly minced.

"Keep all meats covered in an ice-box or cupboard, and free from contamination of flies, cats, dogs, insects or vermin. A paper bag is easily slipped over a dish or platter of food to protect it. Save your clean paper bags for this purpose.

"Canned meats must be free from mould and should not have a greenish hue when opened. If the top of the can is raised in the center when purchased the contents have probably begun to spoil and should not be eaten. The odor of canned meats should be the same as when freshly prepared. If there is anything putrid present the addition of heat will make it possible to detect the foul odor.

"Buy only poultry that is firm to the touch, has pink or yellow color, with fresh odor and strong unbroken skin. Stale poultry is flabby, bluish-green on the crop and abdomen, has bad odor, the eyes are sunken, there is a wasted appearance of the tissues around the skull, and the skin is easily pulled apart. The odor of decomposition can be detected in any food.

"All shellfish should smell fresh, and the shells should close firmly when put into water or touched with the finger. Fresh fish should have red gills, and moist, bright scales, clear eyes, and be firm and rigid when handled. A stale fish is flabby, has dull scales, the eyes are sunken and covered with film, the gills are pale, assume a greenish color and the fish has a bad odor."

MUST WRAP BREAD.

The Supreme Court of New Hampshire has rendered a decision sustaining the regulation of the State Board of Health requiring the wrapping of loaves of bread before leaving the bakery. Under the ruling of the court all bakers doing business in the state must wrap their bread in paper or suffer a penalty for not doing so.

CHIEF OF NEW BUREAU OF MARKETS APPOINTED.

Charles J. Brand of Illinois has been appointed head of the new Bureau of Markets by Secretary of Agriculture Houston. Speaking of the new chief and the new bureau, the secretary issued the following statement:

"Mr. Brand is a graduate of the University of Minnesota and has been in the service of the department nearly ten years, coming from Chicago, where for several years he had charge of the section of plant economies of the Field Museum of Natural History. He has been engaged in several important lines of work during his connection with the department, and for the last year has had charge of the farmers' cooperative cotton handling and marketing and paper plant investigations of the Bureau of Plant Industry.

"There has been an insistent and growing demand that the government take steps to help in the establishment of economic systems of distribution and marketing of farm products. Congress at the last regular session made an appropriation of $50,000 to begin work. We recognize that the business of farming is an important part of the great business structure of the country, and economical methods of marketing farm products and the supplying of farmers with proper credit facilities at reasonable interest rates are the great practical problems that must be settled before radical improvements of country life can be attained.

"Somewhat better prices for the producer and lower costs, or better products for the consumer and manufacturer, are the aim of the work. It is a difficult one, but much good is expected from it. Saving in selling and handling expenses and reduction of loss through waste and improper business organization will be important features of the department's activity."

Rural credits will be one of the ultimate studies of the new bureau, but it is not expected to do anything with it at present. A commission is now abroad studying rural credits in foreign countries and it is expected to await a report from that investigation before anything is done here.

DEFINES GRAHAM FLOUR.

A definition of graham flour has been issued in a preliminary report on United States Department of Agriculture investigations on that food product. The report says:

"The Bureau of Chemistry has been conducting an investigation of graham flour, concerning which product there is great confusion in the milling trade, with the idea of establishing certain standards with which all graham flours shall comply. Statements made by many millers show that a very large percentage of the so-called graham flours on the market are mixed products, or imitations made from feed bran, together with low-grade flour, 8 or 10 per cent cracker flour and in many instances contain the sweepings from the mill.

"True graham is 'unbolted wheat meal made from sound, clean fully matured, air dried wheat.' This may also be called 'whole wheat flour' or 'entire wheat flour.' Mixtures or flours from which part of the brain has been removed should be labeled imitation graham flours."

The new bulletin gives a history of this flour from the time the ancients made bread from whole wheat to the time it was reintroduced into general use early in the nineteenth century by Sylvester Graham.

NET WEIGHT HEARINGS ANNOUNCED.

The committee appointed by the secretaries of the Department of Commerce, the Department of the Treasury and the Department of Agriculture to draw up regulations for the enforcement of the new Net Weight Law announces that it is now ready to receive recommendations and suggestions in writing. The first hearings for manufacturers, dealers and others interested will be held in New York during the week of June 9, and other hearings will be held whenever and wherever there is sufficient demand.

Communications for this committee should be addressed to the Net Weight Law Committee, Department of Agriculture, Bureau of Chemistry, Washington, D. C.

The net weight law was signed March 3, 1913, and is to go into effect eighteen months from that date. It requires that the quantity of the contents of food packages be plainly marked on the outside of each package in terms of weight, measure or numerical count.

Department of Agriculture to Help Oyster Industry

FOLLOWING is an abstract of an address by Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, given before the annual convention of the Oyster Growers and Dealers' Association of North America at the Park Avenue Hotel, New York City, May 21, 1913:

The widespread and growing fear that the oyster is a source of disease and is not a safe food undoubtedly is one of the factors that adds to the pressure of the high cost of living. Because in very rare cases oysters from a bad bed have caused sickness and because in many cases local authorities have sought to escape responsibility for polluted water or milk supply by placing the blame upon wholly innocent and silent oysters, the people more and more are shunning this really valuable food.

It follows that as people stop eating oysters they eat more meat—possibly more expensive meat. And, the more meat is eaten, the greater the demand and the higher the price.

As a general proposition, it is fair to state that people run less risk of contracting typhoid fever from oysters than they do from drinking raw milk, or the water supplied in many communities. The great bulk of the oysters sold are wholesome. The number of oyster beds where pollution is even possible is relatively small. I could wish that the number of dangerous sources of milk supply was as small and that the percentage of pure, wholesome milk was as great as the proportion of wholesome, safe oysters that reach our tables. Although I can not give to oysters an absolutely clean bill of health, I can say that the prejudice against them is out of all proportion.

Whether the owners of polluted sources market their dangerous product in ignorance of their criminality or with a criminal indifference matters little. The result is the same—they have put under suspicion all oysters. As a result our oyster production has not developed as much as our increase in population warrants.

Possibly you may think offhand that the Department of Agriculture has little to do with oysters, but its concern in oysters is almost as direct as in oysterplant. While the exploitation of our waters as a source of food is mainly a function of the Bureau of Fisheries, sea food as soon as it passes into interstate commerce comes directly under the control of the Department of Agriculture.

There is a further economic reason for the interest of this department. Every pound of food taken from the sea relieves the land of producing a corresponding amount of meat and so releases so many acres for the production of grain and fruit. Every pound of food produced on land uses up some of our soil fertility. Seafood is a net gain to the land and, moreover, furnishes fertilizer to the land and directly enriches the soil. It is but natural that the Department of Agriculture wants to stimulate the production of seafood, and especially oysters. Thousands of acres of shallow waters are available for oyster beds all along our seaboard and the oyster producing possibilities of the gulf states have scarcely been touched. The oyster grower of the shallow reaches of the sea is as much a producer of wealth as the breaker of new prairie land. Need for developing these new beds will come when, and only when, the present distrust of the oyster is overcome and it is restored to the confidence its food value warrants. To regain this confidence it will avail you nothing to say that the raw oyster is not as bad as raw milk. People will never see the logic of this argument. Health is not a comparative matter to the individual—nor a matter of percentages. He drinks milk because there is no substitute, but he gives up oysters on the first breath of suspicion. You will never whitewash oysters by painting milk black and you certainly won't make milk stew more popular.

The one way to restore oysters to favor is to make every oyster that is sold what it should be. Don't wait for the oyster to live down its reputation. Act and begin to act at once to make it impossible for any owner of a polluted supply to market his oysters. And take action to see that between the oyster bed and the dish of the housewife or the iced chest of the restaurant nothing happens to oysters to lessen their wholesomeness.

The Department of Agriculture is planning to deal with this situation in a new and constructive way that should enlist your support. This policy differs widely from the old one under which shippers of inferior oysters were punished, but nothing was done to help producers keep oysters wholesome. In the future we shall do more than punish and sympathize.

The department is about to begin a systematic sanitary study of the entire question of oyster production. The first thing is to learn what beds from Cape Cod to Texas are polluted. These, I think, will prove to be few. We shall then be able to control interstate shipments from these beds and the publicity thus given will make it a simple matter for state and municipal authorities to prevent local sales. The second step is to see that oysters from wholesome beds are handled in a sanitary manner. Those two things should go far to restore public confidence in oysters. The industry then will flourish and do its share to keep down the cost of living.

The making of a complete sanitary survey of all oyster beds in a reasonable time calls for many trained experts working simultaneously at many points. A vessel of shallow draught equipped as a floating laboratory would greatly facilitate the testing of freshly taken oysters and the seawater over the beds.

While the Department of Agriculture has the necessary authority for this work, its present appropriations do not admit of carrying on the survey on the great scale demanded for complete results. The department feels that the question is of national importance and would warrant the special endorsement of congress in an act providing an adequate appropriation for this work to be done either by the Department of Agriculture, the Department of Commerce or the Department of the Treasury. Moreover certain questions involving states rights are concerned in these matters which seem to make special authorization by congress desirable. Such action would bring the matter convincingly to the attention of the states and do much to foster state and local action.

This, then, is the form of aid the department hopes to give. The speed with which it can be carried on will depend on the funds made available and the date at which the department is empowered to begin its survey.

I trust I have made clear to you the constructive nature of the policy thus outlined. The ideal of the department is not to punish offenders. Its duty to the people demands, of course, that the people be protected and this calls for the elimination of sources of tainted food. But in getting after the wrongdoer, especially in this oyster situation, the department proposes to aid all producers of wholesome oysters to increase their business and when this has been done to have the satisfaction of restoring a desirable food to public confidence.

WAYS OF COMBINING INGREDIENTS.

There are three ways to combine ingredients for cookery purposes:

1. Stirring—This is mixing ingredients with a circular motion, widening the circles until all is blended.

2. Beating—Meaning to inclose air. This requires a brisk turning of ingredients or ingredient over and over, continually bringing the under part to the surface. The utensil used should be brought constantly in contact with the bottom of the dish and reach all parts of the mixture. The arm motion is mostly rotary from elbow or wrist.

3. Folding and Cutting—A method of mixing ingredients so that the air already introduced may not excape. The motion for this purpose is a downward vertical cut to the bottom of the dish with a spoon, then a lifting with its contents, which are turned over on the surface. To be repeated until thorough blending is accomplished. Gentle movement and mostly wrist motion are best for folding.

Stirring and beating are used in cake mixtures where butter is an ingredient. Beating and folding belong to the sponge cake mixtures; in these the yolk of egg and white of egg are beaten separately; the air beaten into the yolk makes it turn lighter in color, the air beaten into the white changes it from a small glutinous mass to a large fluffy substance like dry snow. To keep these air cells unbroken while combining the yolk and sugar mixture with the white and the flour, they must be folded together with a delicate dainty motion—never beaten. It will also be found that to sift the flour once before measuring (as usual) then sift it twice more, and to add it and the white of egg in alternation to the yolk mixture so that the two can be folded in almost at the same time will give the most satisfactory results.

The Louisiana State Board of Health has issued the following circular in reference to the new food and drug regulations recently adopted by that body:

Synopsis of Food Laws Pending in the Various State Legislatures

The following tabulated and compiled list of Food Laws pending in the various states will be of great value to our readers and will keep them informed on Food, Drug and Sanitary Legislation. The list is as complete as possible to be made up to the date of going to Press (the first of each month). The states are arranged in alphabetical order, the Senate Bills being recorded first, the House Bills following. Wherever possible the number of Bill is shown, the introducer and to what committee referred, also what action, if any, the committee has taken. Bills passed and date of adjournment of the various Legislatures will also be recorded.

United States.

HOUSE BILL NO. 1683.

By Mr. Steenerson.

A bill for preventing the manufacture, sale or transportation of imitated or misbranded articles of commerce, and regulating the traffic therein.

Referred to Committee on Interstate and Foreign Commerce and ordered to be printed.

HOUSE BILL NO. 2970.

By Mr. Campbell.

A bill prohibiting fraud upon the public by requiring manufacturers to certify to the materials of which a manufactured product is composed, and to place their name upon manufactured articles of containers.

Referred to Committee on Interstate and Foreign Commerce and ordered to be printed.

HOUSE BILL NO. 4653.

By Mr. Sabath, May 5, 1913.

A bill to amend sections six, seven and eight of the Food and Drugs Act approved June 30, 1906. Foods and drugs are defined, and the term "misbranded" defined as it refers to drugs or articles of food, or articles entering into their composition which contain specific habit-forming drugs.

The last paragraph of section 6, in reference to foods; that they shall be deemed adulterated "If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength; or if the package consist of tin plate and be hermetically sealed, and the contents thereof be of such character as to threaten erosion of the tin, and if the plate of which the package is made contain less than 150 milligrams of pure tin for each five square centimeters of surface, and the inside of said package be not coated with a gum or other substance that is not insoluble in the contents of the package."

Referred to Committee on Interstate and Foreign Commerce when appointed.

California.

Legislature adjourned May 14. Senate Bill No. 788, being an act to provide for the indication of the net quantity of food stuffs and stuffs intended to be used as food, or prepared for use as food for human beings, when sold or offered or exposed for sale in containers, was passed and is in the hands of the governor for signature. The same is true of Assembly Bill No. 1252, which is an act forbidding the destruction of food stuffs, food products, or food articles. The governor also has Assembly Bill No. 1318, which provides that "No person shall sell or offer for sale food in package form unless the quantity of the contents is plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made from time to time by the secretary of the United States Department of Agriculture."

The governor has thirty days in which to sign the bills if he wishes to do so.

Connecticut.

HOUSE BILL NO. 937.

An act amending the act concerning the sale of food in package form and providing that no penalty shall be enforced under said act until the passage of a similar act by Congress.

Referred to Committee on Judiciary.

Adversely reported.

Florida.

SENATE BILL NO. 39.

A general food law, embracing a net weight labeling clause, which provides for reasonable variations.

Referred to Committee on Judiciary.

Committee offered a substitute bill which was adversely reported.

House Bill No. 159 is an identical bill to above and passed the house, and was amended in the senate.

HOUSE BILL NO. 636.

By Mr. Taylor.

A bill to be entitled an act to prohibit the sale of baking powders, self-raising flour or other foodstuff containing any alum or other drug or preparation that is injurious or deleterious to public health.

Referred to Committee on Public Health.

Recommended for passage.

Title amended and passed the House on May 20.

Illinois.

SENATE BILL NO. 20.

An act defining a cold storage warehouse, and to regulate the cold storage of fresh meat and fresh meat products, except in process of manufacture, fresh food, fish, game, poultry, eggs and butter.

Reported as amended from Committee on Warehouse and Cold Storage, May 14.

Passed the Senate.

SENATE BILL NO. 283.

By Mr. Maclean, March 20.

A bill for an act to amend section 1 of an act entitled, "An act to prevent the preparation, manufacture, packing, storing or distributing of food intended for sale, or sale of food, under insanitary, unhealthful or unclean conditions or surroundings, to create a sanitary inspection, to declare that such conditions shall constitute a nuisance and to provide for the enforcement thereof," approved June 5, 1911, and in force July 1, 1911, and by adding thereto an additional section to be known as section 9a, and which provides as follows:

Sec. 9a. All cans, bottles, boxes and other containers used for the purpose of delivery or transportation of milk, cream, ice cream and other milk products, after being emptied of their contents and before their return, shall be thoroughly cleaned by the consumer, jobber, dealer or other person receiving the same; and any person, firm or corporation who returns or delivers or offers to return or deliver to any producer, dealer, jobber, manufacturer or carrier any such empty can, bottle, box or other container used for the purpose aforesaid, which has not been thoroughly cleaned, shall be guilty of a misdemeanor and punished as hereinafter provided.

Referred to Committee on Judiciary.

Amended May 14 and recommended as amended.

Passed the Senate.

SENATE BILL NO. 284.

By Mr. Maclean. March 20, 1913.

A bill for an act to amend sections 1, 8, 9, 10 and 21 of an Act entitled, "An act to prevent fraud in the sale of dairy products, their imitation or substitutes, to prohibit and prevent the manufacture and sale of unhealthful, adulterated or misbranded food, liquors or dairy products, to provide for the appointment of a State Food Commissioner and his assistants, to define their powers and duties and to repeal all Acts relating to the production, manufacture and sale of dairy

and food products and liquors in conflict herewith," approved May 14, 1907, and in force July 1, 1907, as amended by subsequent Acts, and to repeal section 17 of said Act.

This bill contains a net weight clause requiring labeling of packages with net weight of contents, and providing for reasonable tolerances.

Referred to Committee on Live Stock and Dairying.

Amended to comply with national food law in weight labeling clause and also to permit the use of saccharin in accordance with the national standards.

On second reading.

Recommended to pass.

House Bill No. 284 by Mr. Watson is identical to above. It is now in Committee on Live Stock and Dairying.

SENATE BILL NO. 528.

By Mr. Ettelson.

An act to amend and revise the title and sections 1, 2, 3, 5, 6, 7, 8, 9, 10, 27c, 27e, 27j and 27k of an act entitled, "An act to prevent fraud in the sale of dairy products their imitation or substitutes to prohibit and prevent the manufacture and sale of unhealthful, adulterated or misbranded food, liquors or dairy products, to provide for the appointment of state food commissioner and his assistants, to define their powers and duties and to repeal all acts relating to the production, manufacture and sale of dairy and food products and liquors in conflict herewith." Approved May 14, 1907, in force July 1, 1907, as amended by an act approved June 14, 1909, in force July 1, 1909, as amended by an act approved June 6, 1911, in force July 1, 1911.

Referred to Committee on Live Stock and Dairying.

HOUSE BILL NO. 535.

Mr. McLaughlin.

A bill for an act providing for the licensing, regulating and inspection of cold storage warehouses, and regulating the sale of articles of foodstuff stored therein, or in any cold storage warehouse.

Referred to Committee on Warehouses.

HOUSE BILL NO. 589.

By Mr. Sherman.

To amend the food law approved May 14, 1907, to make section 9 of the fourth sub-division read as follows: "If it be a manufactured article of food, or food sold in package or bottled form, except fresh milk, and it is not distinctly labeled, marked or branded with the true name of the article, and with either the name of the manufacturer and place of manufacture, or the name and address of the packer or dealer who sells same, or shall fail to have a label showing in some conspicuous place thereon the day of the month and year when said article was packed, canned or bottled."

Referred to Committee on Live Stock and Dairying.

Massachusetts.

SENATE BILL NO. 118.

An act relative to the manufacture, sale or exchange of confectionery deleterious to the public health.

Enacted into law.

SENATE BILL NO. 119.

An act relative to the sale of insecticides.

Amended to be passed and engrossed.

HOUSE BILL NO. 92.

An act relative to the marketing of goods that have been held in cold storage.

Referred to Committee on Public Health.

Leave asked to withdraw.

HOUSE BILL NO. 93.

An act relative to the sale of candy containing minerals.

Referred to Committee on Public Health.

Leave to withdraw asked.

HOUSE BILL NO. 775.

An act relative to the sale of commodities by weight.

Passed to be enacted.

Enacted into law.

HOUSE BILL NO. 1160.

An act to regulate the manufacture and sale of fruit syrups.

Referred to Committee on Public Health.

Leave to withdraw asked.

HOUSE BILL NO. 1162.

An act relative to false stamping and labeling of receptacles containing articles of food.

Referred to Committee on Public Health.

Amended and engrossed.

Passed both house and senate. Was amended in the house and is now in conference committee.

HOUSE BILL NO. 1165.

An act to prohibit the adulteration of candy. This act amends section 6, chapter 213 of the Revised Laws so as to read as follows:

"Whoever, himself, or by his agent or servant, or as the agent or servant of another person, manufactures, sells or exchanges, or has in his custody or possession with intent to sell or exchange, or exposes or offers for sale or exchange, any toys or confectionery, containing or coated wholly or in part with arsenic, talc, saccharin, glucose, ethereal flavors (unless declared to purchaser), iron rust, burnt umber, mineral in any form, fat substitutes for chocolates, wood or denatured alcohol, benzoate of soda, salicylic acid, boric acid or glue, shall be punished by a fine of not less than fifty nor more than one hundred dollars."

Referred to Committee on Public Health.

Referred to next general report for consideration.

HOUSE BILL NO. 2364.

An act to establish tolerances in the sale of commodities by weight.

Referred in conference to Committee on Mercantile Affairs.

Minnesota.

Legislature adjourned. House Bill No. 128 prohibiting the misbranding of beverages was enacted into law; also. House Bill No. 1187, regulating weights and measures and defining standards for various measures of commodities.

Nebraska.

Legislature has adjourned. House Bill No. 377 relating to drugs was enacted into law; also, Senate Bill No. 452, being an act to create and maintain a food, drug, dairy, and oil commission for the state of Nebraska, and defining powers of the office.

New Hampshire.

Legislature adjourned without passing any laws of importance to food interests.

New York.

Legislature has adjourned. No laws of interest to food interests were passed.

North Dakota.

Legislature has adjourned. Senate Bill No. 48, being a cold storage measure, was enacted into law; also Senate Bill No. 315, a diseased meat act, and House Bill No. 283, which relates to false and misleading advertising.

Ohio.

Legislature has adjourned. House Bill No. 53, relating to the duties of the state sealer of weights and measures, was enacted into law; also House Bill No. 54, relating to articles sold by avoirdupois weight or numerical count. House Bill No. 210, relating to the duties of the state dairy and food commissioner became a law.

Pennsylvania.

SENATE BILL NO. 5.

By Mr. Gerberich.

An act relating to food, providing for the protection of the public health, and the prevention of fraud and deception, by prohibiting the manufacture or sale, the offering for sale or exposing for sale, or the having in possession with intent to sell, of adulterated, misbranded or deleterious foods, and of foods short in weight or measure.

Referred to Committee on Public Health and Sanitation.

Reported favorable with amendment prohibiting use of any benzoate of soda and permitting half the amount of sulphur dioxide now allowed by law.

On third reading in Senate.

Killed in Senate.

SENATE BILL NO. 6.

An act for the protection of the public health by providing for the regulation and control of the sanitary conditions surrounding the preparation, handling, storage and serving of foods in hotels, restaurants and dining cars; defining ho-

tels, restaurants and dining cars; imposing certain duties upon the dairy and food commissioner in reference to this act; and providing penalties for violation of same.
Referred to Committee on Public Health.

SENATE BILL NO. 7.

An act relating to non-alcoholic drinks, defining same and prohibiting the manufacture, sale, offering for sale, exposing for sale, or having in possession with intent to sell, of any adulterated or misbranded non-alcoholic drinks.
Referred to Committee on Public Health and Sanitation.
Amended and pending in Senate.

SENATE BILL NO. 8.

An act for the protection of the public health and the prevention of fraud and deception in the manufacture, labeling or sale of milk products; defining such milk products, fixing the standard thereof, and providing penalties for the violation of the provisions of the act.
Referred to Committee on Public Health.

SENATE BILL NO. 9.

An act for the protection of the public health and the prevention of fraud and deception, by regulating the sale of cold storage poultry, game, eggs and fish, providing penalties for the violation thereof, and providing for the enforcement thereof.
In Committee on Public Health.

SENATE BILL NO. 10.

By Mr. Gerberich.

An act to amend an act approved May 11, 1911, entitled, "an act to provide for appointment of county and city inspectors of weights and measures, providing for their compensation and expenses, prescribing their duties, prohibiting vendors from giving false or insufficient weights and fixing the penalties for violation of the provisions thereof," by regulating the appointment and compensation of the inspectors, extending their powers and duties and changing the penalties for violation of said act.
Referred to Committee on Judiciary General.
Passed the senate.
Passed the House.

SENATE BILL NO. 11.

By Mr. Gerberich.

A bill defining commodities and regulating sale thereof.
Referred to Committee on Public Health and Sanitation.
Reported favorably March 28.
Amended and passed first reading, then recommitted.
Passed second reading.

SENATE BILL NO. 12.

An act supplementary to an act entitled "An act for the protection of the public health, by prohibiting the sale, offering for sale, exposing for sale, or having in possession with intent to sell, of eggs unfit for food as therein defined, and prohibiting the use of such eggs in the preparation of food products; providing penalties for the violation thereof, and providing for the enforcement thereof," approved March 11, 1909, providing for the denaturing by kerosene of all eggs unfit for food, within the meaning of said act, and providing penalties for the violation thereof.
Passed senate and second reading in house.
Placed on postponed calendar.
Enacted into law.

SENATE BILL NO. 280.

By Mr. Gerberich, February 17.

An act for the protection of the public health and providing that hotels, restaurants, and other public eating places shall not employ helpers having communicable diseases, and further stipulates to what use utensils in the kitchen and dining room shall be put.
Referred to Committee on Public Health and Sanitation.

SENATE BILL NO. 746.

By Mr. Snyder.

An act prescribing the manner in which articles of commerce shall be sold, prohibiting the giving of short weights and measures, defining same and fixing penalties for violating thereof.
Referred to Committee on Judiciary.

HOUSE BILL NO. 53.

By Mr. Gans, January 21.

An act regulating the sale of certain food that shall have been kept in cold storage.
Referred to Committee on Public Health and Sanitation.
Postponed on third reading.
Passed the House.
Amended by Senate and passed. Returned to House for concurrence.
Enacted into law.

HOUSE BILL NO. 667.

By Mr. G. K. Young, February 13.

An act to amend the act approved May 29, 1901, entitled "An act to prohibit the manufacture and sale of oleomargarine, butterine and other similar products when colored in imitation of yellow butter, to provide for license fees of manufacturers and sellers, and to regulate the sale and manufacture of these products when not colored in imitation of yellow butter.
Referred to Committee on Public Health and Sanitation.
Amended and on second reading in the House.

HOUSE BILL NO. 1683.

An act to regulate the taking of samples of foodstuffs by the dairy and food commissioner and any board of health officer, or any agent or employe therefor from any producer or vendor for the purpose of analysis.
Passed by house and in senate committee.

Rhode Island.

Legislature has adjourned. House Bill No. 24, being an act to regulate the sale of food products, was vetoed by the governor.

Tennessee.

SENATE BILL NO. 152.

An act to prevent frauds in the measure or measurement of articles sold in Tennessee.
Referred to committee.
On third reading.

SENATE BILL NO. 404.

By Senator Tompkins.

A bill creating a market commission, prohibiting monopoly and unfair trade, promoting co-operative enterprises, and making an appropriation therefor.
Referred to Committee on Finance.

SENATE BILL NO. 530.

By Mr. Crawford, February 21, 1913.

An act to amend sub-section 3 of section 4 of chapter 297 of the acts of 1907, relating to food, to read as follows:
"If in package form, the quantity of the contents be not conspicuously, plainly and correctly marked on the outside of the package in terms of weight, measure or numerical count provided, that reasonable variations shall be established by rules and regulations to be promulgated by the State Pure Food and Drugs Inspector; and provided, further, that said variations shall be made uniform with similar variations established by the United States Department of Agriculture whenever said department shall establish same."
Referred to committee.
On second reading.
Passed Senate, and is on second reading in the House.

HOUSE BILL NO. 995.

By Mr. Stone of Lincoln.

An act to prevent fraudulent practices in the buying and selling of articles enumerated in chapter 20, Acts 1887, and chapter 143, Acts of 1895, providing that such articles shall be sold by weight only and never by measure.
On third reading.

HOUSE BILL NO. 1176.

By Messrs. Fuller and Link.

A measure which requires labeling net weight on food packages, in conformity with regulations, tolerances and exemptions as provided by national regulation.
Passed second reading.

Wisconsin.

HOUSE BILL NO. 306.

By Mr. Hull.

A bill to direct the industrial commission to establish a system of direct marketing, and making an appropriation.
Referred to Committee on Agriculture.
Recommended and referred to Committee on third reading.
Sent to Committee on Finance.
Passed both houses.

HOUSE BILL NO. 393.

By Mr. Axel Johnson, February 13.

A bill to amend section 1665 of the statutes, relating to dry commodity standards.

Referred to Committee on Public Welfare.

Indefinitely postponed.

HOUSE BILL NO. 627.

By Mr. Rosa.

To amend Section 1791n-1 and 1791n-4 of the statutes, relating to the restraint of trade in dairy products; to amend subsection 3 of Section 1494aa and Section 1494ac of the statutes, relating to the Babcock milk and cream test; to amend Section 4601a of the statutes, relating to canned goods; to amend subdivision (12) of Section 4601-4a of the statutes, relating to rice, and providing a penalty.

Referred to Committee on Public Welfare.

Amended and on third reading.

Reported amendment 1S in conference and recommended.

HOUSE BILL NO. 668.

By Mr. Hedding.

A bill to confer upon cities of the first class certain powers in relation to the regulation of weights and measures.

Referred to Committee on Public Welfare.

Passed house, and killed in senate.

HOUSE BILL NO. 754.

An act to amend section 4601-1a of the statutes, relating to the sale of syrups, molasses, glucose mixtures, and maple syrup mixtures.

Referred to Committee on Public Welfare.

Amended to permit the use of the term corn syrup on label.

HOUSE BILL NO. 758.

By Mr. Hurlbut.

An act to amend section 4601aa of the statutes, relating to the branding of foods. This bill requires the net weight or numerical count of contents to be placed on package goods, also the name and address of manufacturer, packer or dealer. Reasonable variations are provided for in stating contents.

Referred to Committee on Public Welfare.

Amended and passed the house.

Passed Senate.

HOUSE BILL NO. 948.

By Mr. Hedding.

A bill to create sections 4601am to 4601as, inclusive, relating to the use, care and disposition of vials, cans, bottles and other receptacles for food products, including beverages and drugs.

Referred to Committee on Public Welfare.

Indefinitely postponed.

HOUSE BILL NO. 961.

This is a weight and measure bill.

Has passed the House and was referred to the Senate Committee on State Affairs.

HOUSE BILL NO. 1086.

By Mr. Mahon.

A bill to create a market commission, prohibiting monopoly and unfair trade, promoting co-operative enterprises and making an appropriation therefor.

Referred to Committee on State Affairs.

Substitute amendment 1A and placed on special orders for May 22.

HOUSE BILL NO. 1169.

By Mr. Pfennig.

A bill to repeal certain sections of the food law and substitute new sections, defining duties of the food commission, the method of taking samples, providing for net weight labeling of packages, with reasonable variations, etc.

Referred to Committee on Judiciary.

Amended.

Indefinitely postponed.

REMOVAL NOTICE.

The address of the T. A. Snider Preserve Co., formerly of Cincinnati, Ohio, after June 1, 1913, will be 168 North Michigan avenue (Federal Life Insurance Building), Chicago, Ill., U. S. A.

NATIONAL CONVENTION OF RETAILERS.

The sixteenth annual convention of the National Association of Retail Grocers was held in St. Louis May 19 to 22, inclusive, and discussed many subjects of vital interest to the trade. While many of the matters upon which the speakers and delegates focused their attention were strictly of trade character, the entire public is interested to some extent in the deliberations of such an association, for retail grocers are the ultimate food purveyors of the country.

A strong set of resolutions was adopted by the convention. Among those bearing upon subjects of immediate interest to our readers was one favoring a national law to prohibit the killing of calves for a number of years in order that numerically the number of mature animals may be increased, which would tend to lower the prices of meats and butter to consumers. Another resolution declared that while the retail grocers of the country "favor all intelligent and sincere investigation into the sanitary conditions existing in grocery stores throughout the country, and invite the closest scrutiny into the present-day methods of conveying foods to the public," the convention "resents and condemns any efforts whatsoever of various publications and writers who have sought to influence public minds through the publication of articles written by biased laymen or delivered by radical lecturers."

Touching upon pending legislation in the national legislature of import to the grocers, another resolution endorsed a bill introduced into congress by Mr. Lewis, "known as H. R. Bill No. 20281, to change the name of oleomargarine to margarine, to reduce the rate of tax on margarine for the protection of consumers, dealers and manufacturers of margarine against fraud and afford the Bureau of Internal Revenue more efficient means for the detection of fraud and the collection of revenue.

The election of officers for the association for the ensuing year resulted as follows:

President—H. W. Schwab, Milwaukee.

Vice President—F. B. Connolly, San Francisco.

Secretary—John A. Green, Cleveland.

New Director—W. A. Achilles, Austin, Tex.

Louisville, Ky., was chosen as the next convention city.

MOVE TO ORGANIZE FOOD TRADES.

Following the convention of the National Wholesale Grocers' Association, to be held at Atlantic City, N. J., the first week in June, a conference has been called for June 6 by the American Specialty Manufacturers' Association, to be composed of the various food organizations. This meeting will be held at the Marlborough-Blenheim, and its object is to consider the subject of legislation, both state and national, in its relation to food products, and the regulations to be promulgated under the Gould amendment to the Federal Food and Drugs Act, requiring net weight labeling of food packages. Each of the national food trades organizations has been invited to name not exceeding five delegates to take part in the conference.

It is hoped to have Dr. Alsberg, Chief of the Bureau of Chemistry, at the conference, and it is the intention of the promoters of the plan to work in harmony with the government in securing practical food regulations and then, bending every effort to have them enforced uniformly in all parts of the country.

SALMON CANNERS HAVE NEW ASSOCIATION.

Pacific Coast advices report the organization of the Oregon-Washington-California Salmon Packers' Association. An outline of the aims of the organization is as follows:

"To secure the enactment and enforcement of laws to regulate and protect the salmon canning industry; to gather statistics and disseminate information with reference to the salmon canning industry; to encourage artificial propagation of salmon, and to conserve the natural supply of this food fish; to advertise canned salmon, and to explore and exploit new markets for its sale; to promote a higher standard of education among the members with respect to both the scientific and practical sides of the industry; to hold meetings at various times for the discussion of matters of interest to the members, and to stimulate friendly and social intercourse among them; to by all lawful means improve and perpetuate the salmon canning industry in Oregon, Washington and California, and to promote the welfare of the members of this association as salmon canners."

NEW STATE FOOD AND SANITARY LAWS

OREGON

AN ACT

To amend Section 4900, Lord's Oregon Laws, the same being Section 2, Chapter 167 of the General Laws of Oregon for 1907.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OREGON:

SECTION 1. That Section 4900 of Lord's Oregon Laws shall be and is hereby amended so as to read as follows:

SEC. 4900. *When Article Deemed Misbranded.*—The term "misbranded," as used herein, shall apply to all articles of food or articles which enter into the composition of food, the package or label of which bear any statement, design or device regarding such article, or the ingredients or substance contained therein which shall be false or misleading in any particular, and to any food product which is falsely branded as to the state, territory, county or country in which it is manufactured or produced. That for the purpose of this act an article shall be deemed to be misbranded:

IN CASE OF DRUGS:

First—If its package or label shall bear or contain any statement, design or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, which is false and fraudulent.

Second—If it be an imitation, or offered for sale under a distinctive name of another article.

Third—If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, cocaine, hereoin, formaldehyde, salicylic acid, boric acid, or any other poisonous acid or substance.

Fourth—If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; *provided, however,* that reasonable variations shall be permitted, and tolerances shall be established by rules and regulations made in accordance with the provisions of Section 4904 of Lord's Oregon Laws. No geographical name shall be used in connection with a food product not manufactured or produced in that place, when such name indicates that the article was manufactured or produced in that place; *provided,* that the use of a geographical name in connection with a food product shall not be deemed a misbranding when by reason of long usage such name has come to represent a generic term, and is used to indicate a style, type or brand, but in all such cases the state, territory or country where any such article was manufactured or produced shall be stated upon the label. The size of the type shall not be smaller than eight-point caps; *provided,* that in case the size of a package will not permit the use of said type, the size of the type may be reduced proportionately.

Fifth—If the package or its label shall bear any statement, design or device regarding the ingredients or substance contained therein, which statement, design or device shall be false or misleading in any particular; *provided,* that an article of food which does not contain any added poisons or deleterious substance shall not be deemed to be adulterated or misbranded in the following cases: First, in case of the mixtures or compounds which may be now or from time to time be known as articles of food under their own distinctive name, and not an imitation of or offered for sale under a distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced; second, in case of articles labeled, branded or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word "compound," "imitation" or "blend," as the case may be, is plainly stated on the package in which it is offered for sale; *provided,* that the blend as used therein shall be construed to mean a mixture of like substance, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only; and *provided further,* that nothing in this act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome and added ingredients to disclose their trade formulas, except insofar as the provisions of this act may require to secure freedom from adulteration or misbranding.

This act shall be in force and effect from and after the first day of July, 1914.

Filed in the office of the Secretary of State February 25, 1913.

UTAH

AN ACT

To amend Sections 729, 734, 736, 737, 739, 741, 742, 745, 746X3, 746X5, 746X14, 746X15, 746X16, 746X17, 746X19, 746X20 and 746X23, Compiled Laws of Utah, 1907, prohibiting false and fraudulent statements and representations in advertising; repealing Sections 746X, 746X1, 746X13, 746X26 and 746X27, Compiled Laws of Utah, 1907, and prescribing rules of pleading and evidence in certain cases.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF UTAH:

SECTION 1. That Sections 729, 734, 736, 737, 739, 741, 742, 745, 746x3, 746x5, 746x14, 746x15, 746x16, 746x17, 746x19, 746x20 and 746x23, Compiled Laws of Utah, 1907, be and the same are hereby amended to read as follows:

SEC. 729. The office of Dairy and Food Commissioner for the state of Utah is hereby created. Such commissioner shall be appointed by the governor, by and with the consent of the senate, and his term of office shall be for four years from the date of his appointment and until his successor is appointed and qualified, provided that such commissioner may be removed by the governor for cause and vacancies accruing in the office for any cause shall be filled by appointment for the balance of the unexpired term. The salary of the commissioner shall be two thousand four hundred dollars per annum, together with his necessary and actual expenses incurred in the discharge of his official duty, which shall be paid in the same manner as the salaries of other state officers.

SEC. 734. Every person who, by himself, his agent or servant, or as agent or servant of any other person, shall manufacture for sale, sell, exchange or deliver, or offer to sell, exchange or deliver, or have in his possession with intent to sell, exchange or deliver any adulterated or misbranded article of food, drink, drug or confectionery, or who shall adulterate or misbrand any article of food, drink, drug or confectionery, shall be guilty of a misdemeanor.

SEC. 736. The term "drug," as used in this chapter, shall include all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use for the cure, mitigation or prevention of disease of either man or other animals.

That for the purpose of this chapter an article shall be deemed to be adulterated:

In the case of Drugs:

First—If, when a drug is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality or purity as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation; provided, that no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary.

Second—If its strength fall below the professed standard or quality under which it is sold.

In the case of Confectionery:

If it contain terra alba, barytes, talc, chrome yellow, paraffine, or other mineral substance or poisonous flavor, or color, or other ingredient deleterious or detrimental to health, or any vinous, malt or spiritous liquor, or compound or narcotic drug.

In case of Foods:

First—If any substance has been mixed or packed with it so as to reduce or lower or injuriously affect its quality or strength.

Second. If any substance has been substituted, wholly or in part, for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted.

Fourth. If it is mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed.

Fifth. If it contain any added poisonous or other added deleterious ingredients which may render such article injurious to health.

Sixth. If it contain any added antiseptic or preservative substance except common salt, saltpeter, cane or beet sugar, vinegar, spices or wood smoke; provided, that when in the preparation of food products for shipment they are preserved by any external application applied in such a manner that the preservative is necessarily removed mechanically or by maceration in water or otherwise and directions for removal of said preservative shall be printed on the package, the provisions of this chapter shall be construed as applying only when said products are ready for consumption. And furthermore, the provisions of this chapter shall not apply to the addition of benzoate of soda in those foods in which generally heretofore it has been used; provided, that each container or package is plainly labeled to show the presence and amount of benzoate of soda.

Seventh. If it consists in whole or in part of a filthy, decomposed or putrid animal or vegetable substance, or any portion of any animal unfit for food, whether manufactured or not, or if it is a product of a diseased animal, or one that has died otherwise than by slaughter.

Eighth. If it contains saccharin or other artificial sweetening agent.

737. That the term "misbranded," as used herein, shall apply to all drugs or articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein which shall be false or fraudulent in any particular, and to any food or drug product which is falsely branded as to the state, territory, or country in which it is manufactured or produced.

That for the purpose of this chapter an article shall also be deemed to be misbranded:

In the case of Drugs:

First. If it be an imitation of or offered for sale under the name of another article.

Second: If the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, denatured alcohol, wood alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any of such substances contained therein. Provided that wood or denatured alcohol be not allowed in any food or medicine intended for internal use.

Third. If its package or label bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, which is false and fraudulent.

In case of Foods:

First. If it be an imitation of or offered for sale under the distinctive name of another article.

Second. If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package, or if it fail to bear a statement on the label of the quantity of any morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any of such substances contained therein.

Third. If in package form, the net quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count; provided, that reasonable variations and tolerations shall be permitted by rules and regulations made in accordance with this chapter by the State Dairy and Food Bureau.

Fourth. If the package containing it, or its label, shall bear any statement, design, or device regarding the ingredients, or the substances contained therein, which statement, design, or device shall be false or misleading in any particular; provided, that an article of food that does not contain any added poisonous or deleterious ingredients shall not be deemed to be misbranded or adulterated in the following cases:

First. In the case of mixture or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names, and not an imitation of, or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

Second. In case of articles labeled, branded, or tagged so as to plainly indicate that they are compounds, imitations or blends, and the word "compound," "imitation," or "blend," as the case may be, is plainly stated on the package in which it is offered for sale; provided, that the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring or flavoring only. And provided, further, that nothing in this chapter shall be construed as requiring manufacturers or proprietors of proprietary foods which shall contain no unwholesome added ingredient, to disclose trade formulas except in so far as the provisions of this chapter may require to secure freedom from adulteration or misbranding.

739. That a flavoring extract is a solution in ethyl alcohol of proper strength of the sapid or odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and must conform in name to the plant used in its preparation.

The flavoring extracts herein described are intended solely for food purposes and are not to be confounded with a similar preparation described in the Pharmacopœia for medicinal purposes. The term flavoring extracts includes solutions sold for food purposes as flavors, flavorings, essences and tinctures.

Lemon extract is a flavoring extract prepared from oil of lemon, or from lemon peel, or both, and must contain not less than five per cent by volume of lemon oil.

Vanilla extract is a flavoring extract prepared from vanilla beans, with or without sugar or glycerine, and must contain in one hundred cubic centimeters the soluble matters from not less than ten grams of the vanilla bean.

A double extract is, or represents, twice the strength of any ordinary extract. In other words, a double extract of lemon must contain ten per cent of the oil of lemon. A triple extract of lemon must contain fifteen per cent oil of lemon.

A double extract of vanilla would mean that it contains the soluble matter of not less than twenty grams of vanilla bean per hundred cubic centimeters of the extract.

That all extracts artificially prepared, that is, not made from the natural fruit, berry, bean or other part of the plant, must be labeled in letters similar in size and immediately preceding the name of the article, "imitation," "substitute," or "artificial" and if artificially colored it must in like manner be labeled "artificially colored."

That the standards of all other flavoring extracts, unless otherwise provided, shall be the standards adopted by the United States Department of Agriculture and that all extracts must be labeled with the name and address of the manufacturer or distributor thereof.

741. Every person, who, by himself, his agent or servant, or as the agent or servant of any other person, shall make or manufacture any baking powder or any other mixture or compound intended for use as baking powder; or sell, exchange, deliver, or offer to sell, exchange or deliver, or have in his possession with intent to sell, exchange, or deliver any baking powder or any mixture or compound for use as baking powder which shall contain less than ten per cent of available carbon dioxide; or without the common commercial names of all ingredients thereof printed on the package containing the same, shall be guilty of a misdemeanor. The term alum shall be construed to include all salts and compounds of aluminium, and every person, who, as aforesaid, shall sell, exchange, deliver, or offer to sell, exchange, or deliver, or have in his possession with intent to sell, exchange or deliver any baking powder containing any of the salts of aluminium without the package containing the same being labeled "Alum," or "Soda Alum," as the case may be, shall be guilty of a misdemeanor.

742. Every person who, by himself, his agents or servants, or as the agent or servant of any other person, shall sell, exchange, deliver or offer to sell, exchange or deliver, or have in his possession with intent to sell, exchange, or deliver any milk which is not whole milk or which contains less than 3.2 per cent butter fat, or less than 12 per cent solids; or any milk from which any cream has been removed which is not labeled or sold as "skimmed milk"; or any milk which contains any coloring matter or preservatives, or which is impure, unwholesome or adulterated; or any milk from any cow which is diseased or fed upon any food which is in a state of putrefaction or is deleterious to health, shall be guilty of misdemeanor. Provided, the above standard of butter fat shall not apply to milk sold to creameries or condensed milk factories.

745. Every person who, by himself, his agent or servant, or as the agent or servant of any other person, shall sell, exchange, deliver, or consign, or offer to sell, exchange, deliver or consign, or have in his possession with intent to sell, exchange, deliver or consign, to any person, any milk, cream, or other dairy product, or deliver to any creamery or factory to be manufactured into butter or cheese, any milk, cream, or other dairy product to which any boracic acid, formaldehyde, salicylic acid, viscogen, or other compound has been added, shall be guilty of a misdemeanor.

Every person who, by himself, or by his agent, or servant, or as the agent or servant of any other person, shall sell, exchange, deliver or consign, or offer to sell, exchange, deliver or consign, or have in his possession with intent to sell, exchange, deliver or consign any butter not made wholly and exclusively from normal milk or cream, free from all additions, except salt and harmless coloring matter, as provided or permitted by law, or containing less than eighty per cent of butter fat, or more than sixteen per cent moisture, or, if in package form, without the name and address of the manufacturer or distributor plainly and conspicuously printed upon the outside of the package, shall be guilty of a misdemeanor.

Every person who, as aforesaid, shall sell, exchange, deliver or consign, or offer to sell, exchange, deliver or consign, or have in his possession with intent to sell, exchange, deliver or consign, any cheese not made wholly and exclusively from normal milk or cream, salt and rennet, with or without harmless coloring matter as provided and permitted by law, or containing less than thirty per cent butter fat, shall be guilty of a misdemeanor. Provided, that cheese containing less than thirty per cent butter fat shall not be deemed a violation of this chapter if it shall be stamped with the words "Skimmed Milk Cheese" with printed letters in plain gothic type, not less than one inch in length and so that the words cannot be easily erased, which label shall be placed upon the cheese and also upon the cloth covering the same and upon the top and side of every box or package containing such skimmed milk cheese.

746x3. Every person, firm, association, or corporation, who received any milk, cream or ice cream, or other dairy products in any can, bottle, or vessel which has been transported over or is to be returned over any railroad, shall immediately upon emptying such can, bottle, or vessel, cause the same to be thoroughly washed, cleansed and aired, and every violation of this section shall be a misdemeanor.

746x5. Every person who, by himself, or his agent or servant, or as the agent or servant of any other person, shall sell, exchange, deliver or offer to sell, exchange, deliver, or have in his possession with intent to sell, exchange or deliver to any person any milk, cream or any product thereof, from any cow kept upon any premises occupied by any family while any member of or person residing with such family may have any contagious disease; or before or until a permit shall have been issued by a proper health officer stating that the premises have been properly disinfected shall be guilty of a misdemeanor.

746x14. When complaint shall be made on oath to any magistrate authorized to issue warrants in criminal cases, that any article of food, drug or confectionery that is adulterated or misbranded, within the meaning of this Act, is in the possession or under the control of any person, persons, firm or corporation, contrary to the provisions of the laws of this state, and that the emplainant believes that such article of food, drug or confectionery is concealed in any particular warehouse, store or refrigerator for mercantile purposes, the magistrate, if he be satisfied that there be cause for such belief, shall issue a warrant for such property.

746x15. All such warrants shall describe and designate the place and property to be searched for and shall be directed to the sheriff of the county or his deputy, or to any constable of the county, commanding such officer to search the house, building, store or other place where any such article of food, drug or confectionery, and for which he is required to search, is believed to be concealed, and to bring such property when found, and the person or persons in whose possession the same shall be found, before the magistrate who issued the warrant, or before some other magistrate or court, having cognizance of the case.

746x16. When any officer in the execution of a search warrant, under the provisions of section 746x14 and 746x15, shall find any article of food, drug or confectionery that is adulterated or misbranded, within the meaning of this act, and for which a search has been allowed, all the property so seized shall be safely kept by the direction of the court or magistrate so long as shall be necessary for the purpose of being produced as evidence on any trial. And, if, upon a trial, on any such complaint, any article of food, drug or confectionery be found to be adulterated or misbranded, within the meaning of this act, and if it further be found that the same, at the time of such seizure, was in the possession or under the control of any person, persons, firm or corporation, contrary to any of the provisions or requirements of the laws of this state, then, and in such case, the property so seized shall be confiscated under the direction of the court of magistrate, otherwise the said property shall be forthwith returned to the person or persons from whom it was taken and no costs shall be charged to such person or persons.

Chapter 56, Title 91, of the Code of Criminal Procedure, Compiled Laws of Utah, 1907, entitled Search Warrants, is hereby made applicable for the procedure under this section, in so far as legal procedure may not be prescribed in this chapter; and if at any stage of the proceedings before any court or magistrate it shall appear that the matter will exceed the jurisdiction of such court or magistrate, the case or proceeding shall be forthwith certified to the district court of the proper county,. and thereupon such district court shall assume jurisdiction and proceed and determine the matter in accordance with law.

746x17. Every person who, by himself, or by his agent or servant, or as the agent or servant of any other person, shall sell, deliver, exchange, or dispose of, or offer to sell, deliver, exchange, or dispose of, or have in his possession with intent to sell, deliver, exchange or dispose of any vinegar without the name and address of the manufacturer or distributor in large letters in the English language upon the barrel or package containing such vinegar; or sell, deliver, exchange, or dispose of any vinegar which contains less than four per cent, by weight, of absolute acetic acid, or which contains any preparation of lead, copper, sulphuric acid, or any other mineral acid, vinegar eels, or ingredient injurious to health; or, any vinegar made by fermentation or oxidation which is not branded on the barrel or package, "Fermented Vinegar," with the name of the fruit or substance from which such vinegar is made, or which is not free from any foreign substance, or which contains less than one and three-fourths per cent, by weight, of solids contained in the fruit or grain from which such vinegar is fermented, or less than two and one-half tenths of one per cent ash or mineral matter, the same being the product of the material from which such vinegar is manufactured; or, any vinegar made wholly or in part from any distilled liquor which is not branded on the barrel or package "Distilled Vinegar" with the name of the material from which such liquor was made, and free from harmful artificial coloring matter, shall be guilty of a misdemeanor.

746x19. Every owner, proprietor or person in charge of or operating or maintaining any restaurant, hotel, bakery, confectionery or ice cream plant, or any store, place of storage, or plant where any article of food or drink is manufactured, stored, deposited, offered for sale or sold, who shall fail, neglect, or refuse to keep such place clean and in good sanitary condition; or who shall employ any person who is afflicted with tuberculosis, syphilis, or any communicable disease in any such place, shall be guilty of a misdemeanor.

The State Dairy and Food Commissioner, or any of his deputies, upon finding any violation of this section, may forthwith order such place to be made clean and sanitary; or if he deems it necessary, may close or order such place closed, but failure to take any such action shall not relieve the offender from prosecution.

746x20. It shall be the duty of the attorney general, the district attorney, or county attorney, or any other state prosecuting attorney, when called upon by the State Dairy and Food Commissioner, or any of his deputies, to render any legal assistance in their power to execute laws and prosecute cases arising under the provisions of the dairy and food laws. All

fines, fees and costs collected under prosecutions for violations of this chapter shall be paid into the state treasury.

746x23. Every person or corporation who shall violate any of the provisions of this act or chapter shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine in any sum less than three hundred dollars, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment. And any article found in his or its possession in violation of this chapter shall be subject to confiscation and may be destroyed by the State Dairy and Food Commissioner or his deputies.

Section 2. Every person, firm or corporation, foreign or domestic, that shall make or use any false, fraudulent or misleading statements or representations in advertsiing any article of food, drink, drug or confectionery mentioned referred to or included in this act, in any pamphlet, newspaper, periodical or advertisement shall be guilty of a misdemeanor and punished as provided in Section 746x23 hereof.

Section 3. That Sections 746x, 746x1, 746x13, 746x26, and 746x 27, Compiled Laws of Utah, 1907, be and the same are hereby repealed, but this repeal shall not affect any act done, offense committed, or action pending, but the same shall be prosecuted to judgment and execution to the same effect as though this repeal had not been made.

In every action arising under any of the provisions of this act or said chapter, it shall be sufficient to charge the offense in the language of the statute without further particularity, and every exception or proviso, no matter where the same may occur, shall be deemed matter to be pleaded and proved in defense. The certificate of the State Chemist, over his signature, certifying his findings in any analysis or examination of any article mentioned or referred to in this act or chapter, shall be admissible in any court as prima facie evidence of the facts set forth in such certificate.

Section 4. This act shall take effect upon approval.

Letter From Indiana

From a Staff Correspondent.

INDIANAPOLIS, IND., May 26.—This city has been having a crusade against insanitary handling of meats at the city market recently, and approximately 350 affidavits were filed against stand owners here. The city board of health filed one-half of these and the state food and drug commissioner acting for the state the other half. These affidavits were really filed against only about 175 stands, however, as practically all of the owners were served with both city and state papers. The investigation of conditions in the city market has been going on since April 10 and the filing of the affidavits was the culmination of the affair. The cases against the standholders are now pending in the Indianapolis police court.

The state board of health filed affidavits against the butchers in the local market about two years ago, charging them with failure to protect meat as required by law. The cases were dismissed, however, when the butchers took steps to provide themselves with covered cases for meats. Later the butchers became very careless and while they had the cases, did not use them, and meats were left out unprotected.

The state pure food and drug department has sent out several warnings to the milk and cream dealers and jobbers of Indiana calling attention to the provisions of the new law which carries a heavy fine for failure to properly cleanse milk, cream and ice cream containers after they are emptied.

"This law makes it illegal to return any can or receptacle which has been used for the holding of milk, cream or ice cream until such receptacle has been thoroughly cleaned," the state department's bulletin reads. "The law also forbids the use of milk and cream cans for holding sweepings, refuse, dirt, garbage, or any animal or vegetable substance liable to decay and tending to produce or promote unsanitary conditions. We have instructed our inspectors and deputies and the health officers of the state to see to it that this law is rigidly enforced."

The Indiana state food and drug commissioner in an April bulletin tells of deplorable conditions the state inspectors have found to exist in local slaughter houses. He says: "The state board of health has long felt that those, who use meat slaughtered at local abattoirs, should be given the same protection as those whose meat supply comes from government inspected packing houses; but as yet, save in a few instances, local meat is unprotected and the consumer faces the danger that always accompanies the use of untested food."

A letter from one inspector explained conditions he found in an Indiana slaughterhouse and declared that while the sanitary features of the slaughterhouse in question were in as good shape as practically any in the state, it was to the diseased condition of some of the animals that attention should be called.

The inspector's description of the sight when he saw an old dairy cow slaughtered and dressed revealed a condition almost unbelievable.

The lungs contained abscesses, nodules and caseous deposits, according to the report, and the animal had been milked right up to the time of killing. It is such conditions as these it is desired to remedy.

NEW JERSEY BRAN SEIZURE CASE.

Millers are mystified over the apparently hesitant policy of the government about bringing to trial the bran seizure case at Trenton, N. J., says *The Northwestern Miller*. The bran was seized on the charge that it contained screenings and was therefore adulterated. This was in February.

William Furst, attorney for the mill, has visited Trenton three different times, and remained there for a week to ten days on each occasion. He announced his readiness to proceed to trial and the court was ready, but the United States district attorney could not get authority from Washington to proceed, though persistently seeking it.

The question of jurisdiction of the federal district court has been raised. The pure food law, so called, does not specifically refer to milling products or like articles and only sets forth that certain department heads are to make regulations to apply under the act.

Attorney Furst contends that for the government to apply the law to millfeed is to delegate a judicial function to departments and that this is unconstitutional.

The impression gained by those closely watching this case is that the government fears the case is loaded and that in an out and out trial it might fare badly.

At the present time, no one knows when the case will come up for hearing.

WORLD PRODUCTION OF CITRUS FRUITS.

According to briefs and testimony presented before the Ways and Means Committee of the House of Representatives in its hearings on the revision of the tariff schedules last winter, the principal orange-producing countries of the world are the United States, Spain, Italy, Palestine, Japan, Porto Rico and Cuba. The American orange industry is located in California, Florida, Louisiana, Texas and Arizona, and the total annual production is estimated at 20,000,000 boxes. About three-fourths of the American production comes from California, the number of boxes shipped in the 1911-12 season being 13,745,952 and in 1910-11, 15,695,450. The heavy freeze some months ago will reduce the 1912-13 yield much more than 50 per cent. The total acreage runs about 110,000. The Florida production has previously run from 3,500,000 to 4,000,000 boxes annually, produced on an estimated acreage of 59,000, but the crop of the present season is expected to amount to 6,000,000 boxes or more and the output of future years will doubtless average that much or more. The number of pounds of oranges shipped in 1911 from the principal foreign producing sections is given as follows: Spain, 869,725,553; Italy, 282,945,860; Jaffa (Palestine), 60,890,130; Japan, 14,158,559; Porto Rico, 25,076,880; Cuba, 3,609,817. California has furnished about 40 per cent of the total orange supply of the world.

The only sections of the world producing lemons in commercial quantities are southern California and southern Italy, especially Sicily. The acreage in lemon trees in California in 1912 was 31,478, and the production is given as about 2,000,000 boxes as compared with American importations of 1,812,000 boxes. In Italy about 1,250,000,000 pounds of lemons are produced annually. Boxes of lemons as received in New York from Italy run from 68 to 78 pounds per box.

Paper bags are not used extensively at Chihuahua, Mexico, writes Consul Letcher. Better-class groceries employ them, but the small retail merchants use newspapers, forming them skillfully into cornucopias. Old papers are worth 2½ cents per pound.

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Sworn to and subscribed before me this 25th day of March, 1913.

ROBERT F. WINGARD.

(My commission expires June 15, 1915.)

FEED MANUFACTURERS HOLD CONVENTION.

The American Feed Manufacturers' Association held its fifth annual meeting at the Auditorium Hotel, Chicago, May 22, 23 and 24. The first day's session convened at 12 o'clock and consisted of a conference of delegates from the Association of Feed Control Officials of the United States; Millers' National Federation; Interstate Cottonseed Crushers' Association, and American Feed Manufacturers' Association, the subject discussed being the proposed federal feedingstuffs law. Delegates from these four associations met and later submitted a federal feedingstuffs law which is actually the old uniform feed law couched in the terms of the pure food and drugs act. This proposed new law is intended to be substituted for the present Owen bill now before the United States senate, and every indication points to the substitution.

The four associations mentioned above represent all of the national organizations interested in the feedingstuffs proposition and the Owen bill does not have the endorsement of any of these organizations.

On Friday morning, May 23, the convention was called to order by President Chapman. He introduced President Andrew of the Chicago Board of Trade, who made the welcoming address to the delegates. This was followed by the president's annual address delivered by G. A. Chapman of Chicago. Following this, W. R. Anderson of Milwaukee, Wis., read the secretary and treasurer's report. The finances of the association were shown to be in satisfactory condition, but it was stated that the membership of the organization, which is at present comprised of 61 concerns, should be at least 1,000. In order to prosecute a membership campaign and attend to the duties of secretary and treasurer's office as they should be, Secretary Anderson recommended that someone be elected to that position who could devote his entire time to the office, and that he be paid an adequate salary for such service. This recommendation was subsequently endorsed.

The executive committee's report was submitted by S. T. Edwards of Chicago, Ill., and the definitions committee report by F. A. McLellan of Buffalo, N. Y. After the adoption of the officers' reports, committees were appointed and the forenoon session then adjourned.

The afternoon session was given over to addresses and discussion of same, the subjects and speakers being as follows:

"The Utilization of All Available Material," by Dr. T. L. Haecker, University Farm, Department of Agricultulture, Minnesota.

"The Feed Industry and the Law," by Judge Stephen A. Foster of Chicago.

"Feed Control in Illinois and Other States," by Dr. T. J. Bryan, State Analyst, Chicago, Ill.

"The Uniform Feed Law," by Dr. C. D. Woods, Orono, Me.

"Cotton Seed Meal," by W. Youtsey, Cincinnati, Ohio.

"The Feedingstuffs Law and the Application of Same" was to have been discussed by Dr. Carl L. Alsberg, Chief of the United States Bureau of Chemistry, but he was unable to be present, and the talk was given on this subject by Dr. J. K. Haywood of the Bureau of Chemistry.

Thursday evening a dinner party was given at the Auditorium for the delegates, their wives and other guests, and after the dinner the entire party attended the performance, "When Dreams Come True," at the Garrick theater.

Saturday morning a paper was read on "The Cottonseed Feed Industry," by Hugh Humphreys, Memphis, Tenn., and another on "The Proposed Federal Feedingstuffs Law," by G. A. Chapman of Chicago.

These papers closed the program of addresses. The remainder of the session was devoted to routine business, election of officers, etc. The official personnel for the coming year will be: President, G. A. Chapman, Chicago; first vice president, M. C. Peters, Omaha; second vice president, W. Youtsey, Cincinnati; third vice president, R. A. Hale, Chicago; treasurer, W. R. Anderson, Chicago.

No secretary was elected and it was rumored at the close of the convention that Mr. Brown, in charge of feed control matters in New York, would be offered the position. Should Mr. Brown accept, as it is confidently believed he will, the work will be in most competent hands. Mr. Anderson, who was elected treasurer and was the secretary of the association for several years, asked not to have his name considered as that of a candidate for secretary.

The next annual meeting of the association will be held in Chicago in May, 1914, and the semi-annual meeting at Washington, D. C., November, 1913.

BLEACHED FLOUR CASE TO SUPREME COURT.

The so-called bleached flour case has been carried to the supreme court by the department of justice. Attorney General McReynolds and Assistant Attorney General Adkins have filed with the court an application for a review of the decision of the Eighth United States Circuit Court of Appeals, which denied the right of the government to condemn flour bleached by electricity by the Alsop process.

The controversy turns upon the interpretation of that section of the pure food and drugs act which declares that an article shall be deemed adulterated if it contain any added poisonous ingredient which shall be injurious to health. The government claims the law forbade the addition of any poisonous ingredient to an article, even though the quantity be minute and the resulting injury to health from the particular article incapable of measurement. The Circuit Court of Appeals held that the poisonous ingredient must be added in such quantity that there is a possibility of injury to health.

The construction put upon the law by the Circuit Court of Appeals will render the statute difficult if not impossible of enforcement, according to the attorney general.

UTILIZATION OF WASTE RAISIN SEEDS.

A Government bulletin entitled "The Utilization of Waste Raisin Seeds" has recently been issued by the Bureau of Plant Industry. It is based on an investigation which proved that the seeds removed from raisins yield technically useful products that fully justify the expense involved in separating them.

In the raisin-seeding industry, which in recent years has grown to such proportions in California, vast quantities of seed accumulate annually. From 30,000 to 40,000 tons of raisins are seeded every year, and it is estimated that there should be in the neighborhood of 3,000 to 4,000 tons of the seed available annually. The utilization of this waste has received some attention by the producers in recent years, but thus far with little success. It appears that a brandy has been made by fermenting the sugary matter that adheres to the seeds, and that a high-proof alcohol has been distilled after the fermentation. It is also reported that some fixed oil has been obtained from the seeds.

The investigation described in the bulletin showed that four important products can be obtained from the waste seeds, namely, syrup, fixed oil, tannin extract, and meal. If the entire annual output of 3,000 to 4,000 tons of seed were used there would be obtained 550 to 740 tons of syrup, 340 to 460 tons of fixed oil, 330 to 445 tons of tannin extract, and 1,600 to 2,200 tons of meal.

Commercially the manufacture of syrup could be accomplished with comparative ease. Owing to the solubility of the sugars in water the process of preparation resolves itself into simple extraction and concentration. A clear transparent sirup with the characteristic flavor of the raisin can be produced from the sticky seeds. Its uses are many and should justify its production.

After washing off the sugary matter and drying and screening the seeds, they need only be ground for the production of the fixed oil. Two methods of extraction are feasible —by pressure and by solvents. The clear amber-colored oil is useful in paint and soap manufacture and possibly in other industries.

After the preparation of the sirup and the extraction of the oil from the seeds, the extraction of tannin is recommended. As the tannin is soluble in water it can be extracted in a practical way by boiling the meal in large digestion vats, the solution being transferred to vacuum pans for concentration to a moist extract. If a dry extract is preferred it can be obtained by simply allowing the moist extract to dry in the air.

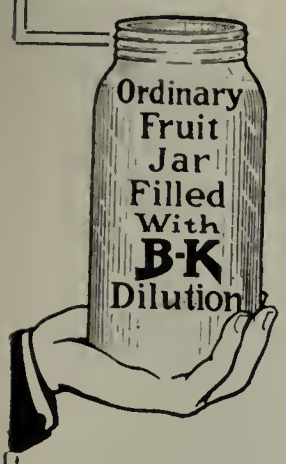
The final residue—the meal—possesses useful qualities. While possibly it is not equal to some of the standard press cakes and meals for stock feeding, yet on account of its high protein content its usefulness as part, at least, of a stock-feeding ration can hardly be denied.

The properties of the four raisin-seed products and the commercial uses for which they are suitable are treated at considerable length in the bulletin.

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THE AMERICAN FOOD JOURNAL

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CHICAGO

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ILLINOIS



HON. JAMES H. WALLIS, OF IDAHO.
New President of the American Association of Dairy, Food and Drug Officials.

THE
COMPLETE OFFICAL PROCEEDINGS

OF THE

Seventeenth Annual Convention

OF THE

Association of American Dairy, Food
AND
Drug Officials

AT

MOBILE, ALABAMA

June 16 to 20, 1913

BATTLE HOUSE AUDITORIUM

The First Day—Monday, June 16

EVENING SESSION

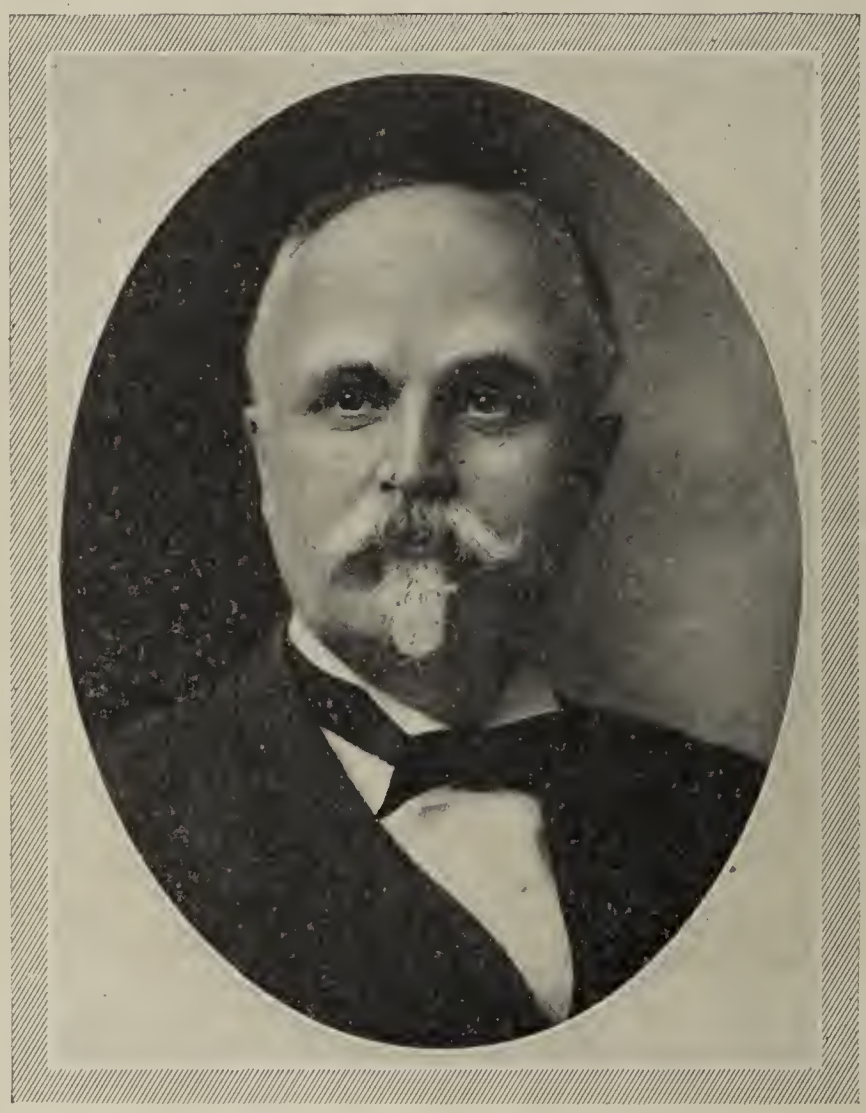
ADDRESSES OF WELCOME RESPONSE BY MR. GEORGE L. FLANDERS

THE PRESIDENT'S ANNUAL ADDRESS

IN the historic city of Mobile, the American Association of Dairy Food and Drug Officials has just held its Seventeenth Annual Convention. Perhaps the most important feature of the convention was the unanimity of opinion which pervaded the work of the whole association in regard to all matters of food control in the past years. This year there were no fiery arguments, no antagonism between officials, only friendly animated and intelligent discussion of the problems which were before the meeting. Everybody worked together in harmony and toward definite ideals.

It became apparent as soon as the delegates began to arrive in the city that there was a general disposition to forget the old animosities and to get together in the responsible work of properly enforcing the laws which so vitally affect the welfare of the whole people, and bear so directly upon varied business interests. It seemed to be recognized that freak enforcement of good and just laws only resulted in casting odium upon the statutes and a reaction of public feeling against those officials who selfishly exploit themselves at the expense of honest manufacturers who are obeying the law, but who at times find it impossible to comply with freak rulings. Coupled with the desire to enforce the laws rigidly there was manifested a spirit of fairness, and a recognition of the fact that an honest manufacturer of foods or drugs is entitled to a fair show.

Of the old guard, the majority were present, yet among the missing were Commissioner Jones of Illinois, M. L. Davies, J. Q. Emery of Wisconsin, James Foust of Pennsylvania, Dr. Crumbine of Kansas, and Maurice Groshen of Wyoming.



GEORGE L. FLANDERS,
Counsel, New York Department of Agriculture.

Of the many notable addresses, two were of universal interest; that of Dr. Alsberg, Chief of the Bureau of Chemistry; and that of James H. Wallis, Commissioner of Idaho. Dr. Alsberg insisted upon the vital necessity of collaboration and co-operation between the officials of the Department of Agriculture and the Food Commissioners of the various states. It was evident from his remarks that a new era of co-operation between Federal and state officials is to be expected. This is greatly to be desired. State legislation is affected to a large extent by the Federal law, and for the Federal law to be effective the national officials must sense and appreciate the conditions existing in the various states.

To any one who has made even a cursory study of the situation, it is evident that no great good can be accomplished unless these two great divisions of the Food Control Work are in harmony.

The Wiley administration of the food laws was at sword points all the time with a large part of the food control officials, with the result that little was accomplished toward uniform legislation based on scientific truths.

The Alsberg administration has the hearty co-operation of all the State Departments and the support of the association as a whole. It will take but a short time to demonstrate the great advantages sure to accrue from the united support of this organization.

Mr. Wallis' paper covered the answers to a set of questions which had been submitted to the various commissioners for answers and comments. These questions are set out in the paper which is printed elsewhere in this issue. Commissioner Wallis edited the answers which had been received and also submitted comment so pertinent that the association referred the matters covered and action suggested by Mr. Wallis to a committee for consideration and report at the next meeting of the association, where this report will be made a special order of business. Undoubtedly the breadth of Mr. Wallis' views and his deep insight into food problems, as revealed by his paper contributed greatly to his election as president of the association.

Among the visitors at the convention were: Dr. W. D. Bigelow, in charge of the laboratory of the National Canners' Association in Washington, D. C.; Charles E. Jaques of the Jaques Manufacturing Company, Chicago, Ill.; George P. McCabe, formerly the solicitor for the Department of Agriculture; Dr. H. A. Baker, chief chemist of the American Can Company; E. O. Grosvenor, first Food Commissioner for the State of Michigan; Charles Wesley Dunn, counsel for American Specialty Manufacturers' Association; John A. Craft, president of the Alabama Oyster Commission; Walter Jeffreys Carlin of the National Association of the Ice Cream Manufacture, and many others.

On Thursday the association elected its officers for the coming year as follows: James H. Wallis, of Idaho, president; J. S. Abbot, of Texas, first vice president; S. V. Strode, of Ohio, second vice president; Sanford C. Dinsmore, of Nevada, third vice president; Hubert F. Potter, of Connecticut, treasurer; W. M. Allen, of North Carolina, secretary.

Executive committee—W. B. Barney, of Iowa; H. E. Bernard, of Indiana; Jeol C. Winkjer, of Minnesota.

On the last day of the convention members of the association were the guests of the Chamber of Commerce and the Business Men's League of Mobile, on a trip to the oyster beds of Mobile bay. The Hon. G. William McAdoo tendered the use of the United States revenue cutter Winona and the trip was a delightful one.

The meeting of the Association was called to order by the Chair. Mr. L. Davies, of Washington, the President, being absent, Mr. Willard Hansen, of Utah, presided.

The Hon. Pat J. Lyons, City Commissioner of Mobile, was introduced to the convention, and he thereupon delivered an address of welcome to the members of the Association, on behalf of the City of Mobile.

The Chair then introduced Mr. Leon Schwarz, of Mobile, Alabama. Mr. Schwarz welcomed the Association to Mobile, on behalf of the Chamber of Commerce and Business League, of Mobile, Alabama.

Mr. George L. Flanders, of New York, thereupon responded to the addresses of welcome, on behalf of the Association.



Response to Addresses of Welcome



By George L. Flanders—Council, New York State Department of Agriculture

IN AUGUST, 1897, thirty-three men, representing dairy and food departments from ten different states of the Union, met at the Cadillac Hotel, in Detroit, Michigan, and organized this association as the National Association of State, Dairy and Food Departments. Meetings of this association have been held annually since that time, sixteen in all. The number of states represented has swollen from ten to thirty-two and the number of delegates accordingly. The meetings have been held in different states each year, no state having had the meeting a second time as yet, so that in its perambulations the association has visited sixteen different states.

The object or purpose of the meeting, as was correctly stated by that body in the preamble of its by-laws, was as follows:

FIRST: To promote and foster such legislation as will tend to protect public health and prevent deception in the manufacture, sale and use of dairy, food and other products intended for human consumption.

SECOND: To promote uniformity in legislation and rulings relative to dairy and food products.

THIRD: To enhance the efficiency of dairy and food laws by developing an acquaintance tending to harmonize the interests represented by those charged with the enforcement of such state laws.

At that time experience had demonstrated the fact that unlike state laws as construed by the executive officer and the courts of the different states had produced a condition of things whereby doing business by large concerns in the different states was attended with much difficulty that increased the cost of distribution, which of itself necessarily increased the cost prices to the consumer, but above and beyond that it also demonstrated that it oft times had placed honest, well intended producers in hazardous positions before the law on account of misapprehension as to or misconception of the meaning of the statute, or as the result of a clerical error in marking, branding or shipping as the case might be. It was conceded that this might be remedied or at least modified to such an extent as to render it decidedly less hazardous and possibly reduce its cost to such an extent as to be a benefit to the customer if the laws of the different states were uniform and could be uniformly construed. This in all probability was one of the potent reasons for the organization of this self constituted body.

It is pleasing to note that in each and every one of the states where this organization has met, there has been found a keen and lively sentiment in this direction and usually an active cooperation toward the desired end. This thought should be one of the uppermost thoughts in the minds of executive officers and should in so far as possible be carried out in so far as it is consistent with the necessities and desires of the state which he represents. It is pleasing at this time to note that Alabama is not only, not an exception to this rule, but that her attitude is an emphatic demonstration of it.

In the year 1912 we had a delightful meeting on the Pacific Coast and this year we are met in this beautiful City on the Gulf. In all these meetings in the different states we have taken note of the fact that each state seemingly had many points of vantage and superiority which were encouraging to the residents, a source of pleasure to the visitor and a matter of common satisfaction to all lovers of our common country.



THE COURT HOUSE, MOBILE.

In this our seventeenth annual meeting we find ourselves in this great state which also has its many points of superiority which would be a matter of personal delight and instruction to us all if we had time to see them. Here we find a state which, when she entered the sisterhood of states in 1819, brought with her a territory 200 miles in length, 336 miles wide, containing approximately 52,250 square miles, wherein nature has dealt generously and seemingly equitably in her disposition of resources.

This state has four definitely recognizable belts, to-wit: in the northwest a belt which produces largely cereal food products, south of this a large mineral belt and still further south she has a cotton or black belt, so called from the soil, and in the more southerly portion she has a large timber belt. She produces cotton, hay, sweet potatoes, sugar cane, rice, oats, wheat, molasses, apples, peaches and some tropical fruits to help feed the world and much tobacco to soothe and please the world. She has eight thousand square miles of coal fields and beds of rich iron ore. She produces limestone, sandstone, white marble, soapstone, graphite and granite. The ore, coal, limestone and dolomite mines are so situated as to render the expense consequent upon the friction of distance practically negligible, and leads one to say that nature, at least in this instance, made an economical if not an equitable distribution of these mineral products.

Here also we find that nature has added to the allurements of his tropical climate the exhalation from the pine trees which tend to produce healthfulness and vigor; that she has provided wisely from the mineral kingdom and bountifully for production in the vegetable kingdom; that she has provided nearly fifteen hundred miles of natural waterways for transportation, to which her vigorous sons of the soil have added nearly five thousand miles of railways. Thus it would seem that in this area not densely populated, but replete in natural resources, the prospects are great for future usefulness to the human family and one may well ask himself the question whether De Soto may not have been imbued with an approximation of intuitive knowledge, when he sought an El Dorado in this land, and in view of the abounding mineral springs, if Ponce de Leon's desires might not, here, have been satisfied.

From our slight book acquaintance with this state, we have come to feel that an extended physical acquaintance would be a source of information and pleasure, but in view of the fact that from our limited time, we will undoubtedly be confined to but a limited portion of your state, we are glad that that portion is in this beautiful city of Mobile, the gateway to the arteries of navagation of your state, the pulse of your commercial activities, and to assure you that we are thrice pleased at this our triple welcome.

The Chair then announced that the Convention would adjourn, to meet again Tuesday morning in the Battle House Auditorium at 10 o'clock.



The President's Annual Address



By L. Davies, Dairy and Food Commissioner
of Washington—President 1912-13

In 1910 this association held its fourteenth annual session in the Crescent City, New Orleans, and again are we met in the Sunny South for our yearly deliberations. It is a pleasure to greet such a splendid representation but this must be tempered with the fact that illness is responsible for the absence of some of the most faithful and valued members of the association.

Since our 1912 session, too, death has claimed its toll from our membership. If I am not mistaken, two charter members of this association, at any rate, two long in the service and able and influential in their respective spheres, have passed to the great beyond. On August 15th, 1912, Dr. M. A. Scovell, Director of the Kentucky Experiment Station at Lexington, died in that city. This association, the cause we represent, and the state of Kentucky have suffered an irreparable loss in the death of Dr. Scovell. He had attained eminence as a scientist and as an advocate of the principles for which this association stands.

Dr. George M. Whittaker died at his home in Fort Atkinson, Wisconsin, on August 29th, 1912. Dr. Whittaker was probably best known to all of us through his many years of valuable service as head of the Market Milk Section, United States Department of Agriculture. He has left a lasting impression on the dairy work of the country.

During the time since our last meeting some legal decisions of deep interest to all officials charged with enforcement of food laws and destined to exert a deep influence over future legislation, have been rendered. Whether caused from distance from the east or considered on the Pacific Coast of minor importance I do not know, but, other than to see a copy of the decision, I have read no comments on the cases of George McDermott, Plaintiff in Error, and T. H. Grady, Plaintiff in Error, vs. the State of Wisconsin—recently decided by the United States Supreme Court—and my remarks on the decision are, therefore, like the mind of a juror qualified to try a given case, unprejudiced. The decision apparently has an important bearing upon the labeling of food, dairy and drug products shipped in interstate commerce. Can a state enforce its laws governing the labeling of food and drug products when those laws conflict with Federal laws and requirements?—seems to be the question raised in the case. In determining this the familiar question of the original package had to be once more considered. The Supreme Court of the State of Wisconsin (and I ask the Commissioner from Wisconsin to correct me if I make a mis-statement of fact) held that the original package was the large box or container holding one or more smaller parcels or packages and that when that large package or container was opened the contents, the several smaller packages were entirely under the jurisdiction of the Wisconsin law. That the package in which the goods were delivered to the consuming public was the original package—was the contention of appellants, and consequently under Federal control when shipped from one state to another. The following presentation of facts governing interstate commerce is brought out in the case:

1. "If the manufacturer ships his products in interstate commerce to a retailer in another state, and the retailer resells to the consumer, the products being labeled to conform to the Federal law, the whole transaction would concern interstate commerce; would be subject to and protected by the Federal law; and the state labeling law would be of no effect in such a case."

2. "If the manufacturer ships his products in interstate commerce to a jobber in another state and the jobber resells to a local retailer the situation would be different, the sale by the retailer, in this instance, being subject to the state law. The first sale by the importer, the jobber, would be subject to the Federal law, but the sale by the retailer would be subject to the state law."

3. "If the manufacturer ships his products in interstate commerce to a jobber in another state and the jobber re-ships the whole or part of these products in interstate commerce to a retailer in (still) another state, and the retailer resells to the consumer the situation will be the same as in No. 1 above."

4. "If the manufacturer sells his products to the wholesaler or retailer in the state of manufacture, such sale would be subject to the state law."

The position of food and drug official is one of extreme delicacy; one that calls forth from every incumbent the soundest judgment and the exercise of the highest degree of common sense. The statutes of many states delegate to the food control official not only the power to enforce the food laws but also the power to formulate and promulgate food standards and regulations, thus imposing a greater burden of responsibility than is placed upon the officials of other state departments. It is, therefore, a consideration greatly to be desired that decisions from our higher judicial tribunals should construe the statutes and define our exact status thereunder. Since our last convention, in addition to the important United States Supreme Court opinion heretofore mentioned, the constitutionality of both the food law of Illinois and also the act governing the sale of oleomargarine in that state has been unsuccessfully attacked both laws having been upheld by the Supreme Court of that state.

A minor decision that is of much interest to some states, my own state of Washington especially, is that of the K. K. K. Medicine Company vs. W. B. Barney, Commissioner of Iowa. It would seem this company was manufacturing a certain medicine which the Iowa Commissioner contended must conform to the drug laws of his state. The constitutionality of the state food and drug law was brought directly before the court and upheld. I am not advised as to whether the case has been appealed to the higher courts but hope it has as an opinion from that source would be of inestimable value to Iowa food officials as well as a valuable reference for those of other states.

Since our last meeting, or about the time thereof, in the case of the state of Louisiana vs. Snyder the constitutionality of the food and drug law and sanitary law of the state was upheld. And the United States Circuit Court of Appeals, Eighth Circuit, in the appeal of the Lexington Mill and Elevator Company, Claimant vs. United States of America from the District Court of the United States for the Western District of Missouri, popularly known as the bleached flour case, reversed the holding of the lower court and remanded the case to such court for a new trial.

A former president of this association in his annual address used these words: "The laws that have been enacted in the different states and in the nation have been so enacted at the instance of public sentiment and demand." This is true, but haven't you, as food control officials, found from close observation that this sentiment has been aroused by education of the public as to conditions resulting from your own activities? Hark back to the early days of official work before there was extensive food control legislation, and before regulations were adopted prohibiting the use of all or certain coloring matters, for example, and we find the consuming public demanding those products most pleasing to the eye. The unprincipled manufacturer was quick to take advantage of this and prepared his cheap but pleasing-to-look-upon foods accordingly; the reputable food manufacturer was forced to follow in the other's path or go out of business. Food officials alive to the work, executives and chemists, discovered the situation, exposed conditions to the public which has demanded our present legislative enactments.

The present day legislation as to cold storage is somewhat similar. Cold storage is a necessity. Conditions in our large cities, transportation of perishable and easily deteriorating food stuffs to different sections and to our far-off possessions make it one of the boons to humanity, if *properly regulated*. In the state of Washington no one has been more willing to co-operate with the officials in cold storage inspections than cold storage warehouse men themselves. It was the discovery and destruction, by the state food department, of tons of spoiled poultry, fish and beef that informed the public of the actual conditions and aroused it to the necessity for statutory regulation. This association's part in formulating and endorsing a model bill acted as a mighty influence on the legislature, yet a workable law could not be agreed upon and the matter was dropped. Some prog-

ress has been made in other states since our last meeting. Laws closely following the one proposed by this association have been enacted in the states of Iowa, Pennsylvania, California and North Dakota.

In the field of sanitation public agitation seems not to have attained pronounced results in the way of legislation, but more progress is reported in actual work in this field than in any other. The following states have enacted sanitary food laws within the year: Colorado, South Dakota, Wyoming and Nevada.

The state of Pennsylvania placed the matter of food sanitation under the State Board of Health. I do not presume to criticize their action and trust my remarks will not be so construed in the slightest degree, but the experience of the states having sanitary food laws has caused it to become a conviction with me that sanitary food law enforcement should be under the jurisdiction of food control officials. In the state of Tennessee, with a comparatively small inspection force, much attention was given to sanitary work, 2,147 inspections being made with special emphasis on the educational features. North Dakota has given special attention to the sanitary inspection of all food distributing places. Presumably there are no extensive food manufactories in that state. In food inspections, as in dairy inspection, there is being developed the score card system which we hope to hear about at this meeting from experts, but the Commissioner of North Dakota, in addition to the score card, has devised a slip which is filled out and posted at each place inspected showing its standing at the last inspection.

The Health Train of Louisiana, under supervision of the Commissioner of that state, continues its useful work. From the standpoint of sanitary education alone this would well be worth many times the expense of operating. There are two cars owned entirely by the State Board of Health and it is planned to spend from one to six days in every parish of the state. The state of Maine has a law stating that foods must be protected, but does not designate how. The Commissioner from that state has worked out an interesting system under this law and I quote his words: "In enforcing this clause of the food law I consider foods in three general classes which, of course, merge at times into each other: First the class of naturally protected foods of various kinds which includes some vegetables like potatoes, turnips, beets, etc., and some fruits like oranges. bananas and lemons which either have a thick inedible covering which must be removed before the food is eaten, or which, because of the nature of the food, must be washed or pared and thoroughly cooked before being eaten. Such foods as these I consider naturally protected and do not require further protection. The direct opposite of this, of course, is the class of foods like soft berries, including strawberries, raspberries and blackberries; sticky fruits like figs and dates, confectionery of all kinds which is unwrapped; bakery foods of all kinds which are unwrapped; shelled nuts. including salted peanuts, popcorn, corn balls and other kinds of foods which are already prepared for eating and which do not receive further preparation either in the way of washing or cooking. Such foods as fall into this class we require to be protected adequately from dust, flies, and the possibility of receiving the spray from the mouths of people who talk and laugh in the stores and on the sidewalks. Between these two classes there is another represented by pears, apples, plums and grapes which have a skin which may be either washed or removed before the foods are eaten. This class of foods we require to be protected by a mosquito netting, but we do not require such careful protection from dust."



ONE OF MOBILE'S SHADY DRIVES.



THE BATTLE HOUSE, WHERE THE CONVENTION WAS HELD.

In the state of Indiana there were made 13,901 sanitary inspections of grocery stores, meat markets, dairies, restaurants, etc., of which 219 were reported excellent, 8,160 good, 4,720 fair, 688 poor and 114 bad. Colorado, Idaho and other states whose food control officials have charge of such work have given much attention to the matter of regulating quality of ice and drinking water used on trains by passengers in interstate travel.

The greater number of sanitary food laws in force contain the provision for physical examination of employes in food manufacturing and distributing establishments. Kansas reports that the chief progress made in food control work has been the physical examinations of all employees in the great meat packing establishments of the state. Florida, South Dakota, Texas and Connecticut report activity in this direction, Connecticut taking up more especially that troublesome problem of the sanitation at the small slaughter houses.

Those of you who accompanied the excursion last year from Seattle to the Salmon cannery at Bellingham, Wash., the largest one in the world, undoubtedly became convinced that one of the problems in sanitation is the control of canneries where such universal food as canned fish is prepared. These canneries are undoubtedly included within the provisions of all sanitary food control acts, but Delaware has passed a special act for the supervision of these places and providing special inspection force therefor.

Away back in the early history of most states, to a time in fact when the memory of most members of this association runneth not to the contrary, laws were enacted regulating the matter of weights and measures and almost universally county auditors were made ex officio county sealers. To enact a law, as has been said, educated public sentiment must urge a necessity for it. To enforce a law successfully public sentiment must be back of the official. Lack of this awakened sentiment doubtless was the prime cause for these original laws to lie dormant until they have become practically obsolete. Failure of these former acts to make it compulsory that weights and measures be sealed was also a contributing cause. The public, however, has again become awakened to the necessity for regulation in this regard.

The Federal Congress took the initiative for the year and a law has been enacted in the states of Nevada, Michigan, Maine, Florida, South Dakota, Wisconsin, California, Illinois, Iowa, Massachusetts, Minnesota and Washington. Some of these laws conform to the amendment in the Federal law, but the majority are independent acts. The acts in Florida, Illinois, Iowa, Michigan, Minnesota and Nevada provide reasonable tolerance. The act in the state of Washington does not. So far as advised the enforcement is put under food control officials except in Washington where it is to be enforced by the secretary of state. An evident improvement in conditions is generally reported. A specific example of much

interest is that reported from Nevada:

	Per Cent Short.	
	June.	December.
Mr. A's Creamery....	5.07	0.73
Mr. B's Creamery....	6.66	0.78
Mr. C's Creamery....	9.17	1.77
Mr. D's Creamery....	2.87	1.20
Mr. E's Creamery....	3.23	1.81
Mr. F's Creamery....	6.08	0.86
Mr. G's Creamery....	2.75	1.01

It is a fundamental constitutional provision that no property can be seized and destroyed without due process of law. It is a further well defined principle of law that a defendant is presumed innocent until he is proven guilty. No manufacturer of or dealer in food stuffs should be given publicity and notoriety, with a consequent injury to business, until the offence is established beyond a reasonable doubt. There are almost as many different methods prescribed for taking samples, following them through the laboratories and, if found in violation of the law, handling the matter finally, as there are states with pure food and drug laws. Obviously, the simpler this proceeding is made the more advantageous it will be for the official enforcing the law, the better protection from a possibility of unjust publicity will the owner of the product have and the quicker will the consuming public secure relief and protection. During the year closing many jurisdictions have given special considerations to this feature and have passed laws simplifying methods of administration, doing away with unnecessary preliminary steps in the manner of collecting and forwarding samples, conducting hearings and providing for boards to conduct hearings and fix standards. Notably so is this true in the state of Nevada.

Reference to the constitution of this association demonstrates that the purpose of the association in its annual meetings is essentially to discuss topics relating to food, dairy and drug control, yet the statutes of our several states impose on food, dairy and drug officials a multitude of other duties. This tendency has in no degree lessened during the last year and executives, in reporting progress, have emphasized these new duties. Among the many might be mentioned oil inspectors, hotel inspectors, agricultural seed law enforcement, insecticide and fungicide laws, building inspection regulations and supervision of paints.

Legislation prohibiting sub-standardization of drugs is being agitated in many states. A number of executives report having taken active steps to educate the people to a demand for the passage of such laws. This question, however, will be thoroughly discussed in its regular place on the program. The most important legislation in drug control is that of the Federal Congress passing what is known as the "Sherley Act" as follows: "If its package or label shall bear any statement, design or device regarding the curative or therapeutic effect of such article which is false and fraudulent." This is a most important step towards eliminating fake advertising and false claims as to value of medicinal preparations; especially does it affect purely spurious preparations really having no medicinal properties of value. Michigan has made its new act general and passed what is known as a pure advertising bill punishing any one who inserts in newspapers misleading and deceptive advertising. California adopted amendments making their laws conform to the National act. Ohio also adopted the Federal amendment, as well as an act giving the Commissioner authority over drugs dispensed by physicians. Louisiana has adopted new food and drug regulations, keeping them as far as possible in uniformity with the U. S. Food and Drug law and regulations. An act regulating the sale of all narcotic drugs has been passed in Connecticut. North Dakota passed an Honest Advertising Law, or one that prohibits false and misleading advertising of food and drug products.



WILLARD HANSEN,
Who Occupied the Chair During the Convention.

It is to be regretted that a full report on food sampling and laboratory work in the states is not available, but comparatively few reviews of this feature of the work were sent in time to be used in this paper.

The federal laboratory at Washington, together with the branch laboratories have done their usual amount of testing but of chief interest is their research work. This work extends into so many fields that mention of but a very few can be made. Of major importance is the investigation into the canning and preserving of fruits, for which work a special laboratory has been equipped. Much trouble has been experienced in the state of Washington owing to the corrosion of tin containers of different foods. The federal authorities have continued the "study of the corrosive action of various canned foods upon the tin of the receptacles and the consequent tin content of the food preserved."

The sanitary conditions in and surrounding a food manufactory must of necessity have a bearing upon the healthfulness and keeping qualities of the output of such factory. The investigation of the sanitary conditions under which different foods are put up has, therefore, been made an important feature of federal investigation. Study of the bleached flour question "with a view to determining methods for the detection of bleaching agents other than nitrogen peroxide"; experiments in different methods of poultry packing; actual manufacture of and extended analytical work on cider vinegar; continued investigations into the sugar maple industry; methods of testing drugs and many other features of their investigations are of paramount interest to members of this association.

In the state work Pennsylvania again seems to lead in the number of samples taken and analyzed. The commissioner of that state reports 7,204 samples taken; Illinois reports 6,607, Minnesota 4,547, Indiana 2,449, Nevada 1,300, Washington 1,666, Texas 1,038, California 1,080, Louisiana 955, Tennessee 587 and Ohio 1,251.

The health of the consuming public depends as much on the wholesomeness of our milk supply as it does on the purity of solid foods. No food is so universally consumed as milk and other dairy products. One of the first and paramount duties of the dairy official is to see that good, pure milk is supplied for consumption, more especially for food for babies. This is the Association of DAIRY, Food and Drug Officials, yet it has many times seemed to me we do not give the subject of the dairy interests the time and consideration its importance merits.

There is no branch of our work that demands more attention, that requires more intelligent action, that is in need of greater uniformity in laws or that demands a greater degree of unselfish co-operation among officials than in the supervision of the milk supply of our cities and towns. Is this the case? Time will not permit of giving provisions of different state laws and regulations but I wish to call your attention to a study of these, also to the multitude of conflicing municipal regulations within individual states.

The Dairy Division, United States Department of Agriculture, is doing a splendid educational work, and one tending to a greater uniformity in dairy industry regulations, by introducing and securing the adoption of, by states

and municipalities, its dairy score card.

Much intelligent progress in dairy matters appears from the work of the officials during the past year. The municipalities in the state of Indiana are making no special efforts towards local milk regulations, preferring to leave this to the state authorities, and right here appears to me to be the key to the situation for more uniform and effective dairy law enforcement, namely to give the state exclusive supervision with ample assistance and the drawback of jealousies and conflict of authority as a preventative of effective co-operation will be eliminated.

The state of Michigan has enacted a law fixing the butter fat standard in cheese at 30 per cent It has also fixed a 10 per cent ice cream standard. But the law with farthest reaching effect is an act passed in that state known as the antidiscrimination law prohibiting the payment of a greater price for cream, by centralizers, at one point than another.

The District of Columbia grades its milk and cream so the consumer is enabled to determine the quality thereof he is using. The District officials also use its score card as an educational factor in improving dairy equipment and general conditions. A decision of great interest was also rendered in a case instituted against a vendor of milk charged with selling a product composed in part of filthy, decomposed animal and vegetable substances indicated by the excessive number and the kind of bacteria present therein. The sample was found to contain an excessive number of bacteria and a large number of organisms of the colon group and of streptococci. Upon above the lower court was sustained.

After several years of effort the state of Montana has passed an excellent dairy law and we may look for a great development in the dairy industry in that prosperous commonwealth. Delaware legislators failed to provide for dairy inspections, although a bill providing for state dairy supervision was before them at the last session.

One feature of the progress reported in dairy matters has a peculiar interest to me, personally. Several states report fully on the methods and volume of work done in testing dairy products as furnished by dealers direct to the consuming public and further bring out the fact that new methods are being adopted in following back the supply of milk and cream to the dairy herd, pointing out to the dairymen personally the conditions that need changing. This custom as an educational factor has been followed in the state of Washington for some six years now.

Nevada, Louisiana, Minnesota, Missouri, Connecticut, North Dakota, Tennessee and Idaho report much activity in bettering dairy conditions.

Members of the Association: Coincident with the termination of my presidency of this association comes the closing of my official connection with food, drug and dairy work. With other features of giving the public wholesome foods I still hope to have a part. Eight years ago at Portland, Ore., I attended my first meeting of this association and the state of Washington department has missed but two since, the one at Hartford, Conn., and the one at Jamestown, Va. These meetings have enabled me to form many close and valued friendships and I shall always cherish as the greatest honor ever enjoyed by myself the presidency of the Association of American Dairy, Food and Drug Officials (and the privilege of presiding at its seventeenth annual session in this beautiful and historic southern city of Mobile).

I cannot retire without mentioning a few principles that have impressed themselves upon me during my eight years of official labors. The most important seems to me is to avoid sensationalism. The food and dairy official occupies a peculiar position. His first duty, in fact, the excuse for his very existence, is to protect the health of the consuming public. And yet, in enforcing food laws he should endeavor to do so in such a reasonable way as not to create suspicion against all manufacturers and purveyors of food stuffs, for when he does this the inevitable result is a reaction on the consumer in the way of higher prices. In his dairy work the public must be assured of pure milk and yet this must be done in a way to educate the dairymen and stimulate the industry generally rather than in a manner that secures large type "headliners" and a resulting discouragement to the industry and no lasting good to the consumer.



L. DAVIES,
Retiring President of the Association.

There is no greater channel for public good than the press; its columns are always open to the official to promulgate his extension work, and yet have not you sometime in your work found what you considered of vital importance minimized, while an unimportant, to you, feature might be "headlined" to attract the public eye? A specific example will illustrate my contention against sensational methods: In a certain city, name of city and state immaterial, was a woman food inspector. It was contended that a vendor in the market place was violating some requirements of the local ordinance. In place of resorting to the courts and bringing about an orderly adjustment of the difficulty, the inspector secured a saw and cut off the legs of the stand and the whole stand with its contents tumbled into the street. It must be admitted that the particular problem was solved, but the work and methods of food officials generally were made a matter of ridicule. It is interesting to note the emphasis given by so many executives to the educational work along food lines. The following statement from one official is characteristic of that from many others: "The work of this department has been of an educational nature, harmonizing so far as possible with the trade and thereby bringing about enforcement of our law without recourse to arbitrary measures."

Again it has become a conviction with me that the work should be made educational to as great an extent as possible. The exercise of the authorized police powers of officials is absolutely necessary at times but should be used with discretion. Especially is the educational work essential in exercising the functions of the office over dairy interests. In this connection the dairy inspector, whether state or municipal, should be both a practical dairyman and technically educated, in short, as capable of instructing and assisting in extension work as any instructor in dairy schools or experiment stations, with the additional qualification of being practical in every respect.

There is a general feeling among pure food officials of the higher type that the function of a State food department should be more educational or constructive and not so much given to police work as has been the case in the past. Not that the law should not be enforced but rather that people should be thought to value the law and live up to its provisions. Men who are heavily fined or sent to jail for violating a law they did not fully understand are not made better citizens as a result of their punishment. The world generally is getting away from the harsh methods of other days and are teaching morals much as they would teach a science. Mr. Davies showed by his paper that he is abreast of the times.



The Second Day—Tuesday, June 17



MORNING SESSION

ROLL CALL
REPORT OF EXECUTIVE COMMITTEE
REPORT OF SECRETARY.
REPORT ON THE BACTERIOLOGISTS
REPORT OF THE TREASURER
APPOINTMENT OF COMMITTEES
ADDRESS BY DR. E. F. LADD
ADDRESS BY DR. W. P. CUTLER

MR. WILLARD HANSEN, of Utah, First Vice-President, occupied the chair and called the Convention of the Association of American Dairy, Food and Drug Officials to order.

The Chairman: The first order of business will be the roll call of States, which will be called by the Secretary. I would suggest that in the roll call of states, the person who is qualified to represent the State will just answer "present," and later, we will ask you to write your name and address and your official position in your home state on a card, which you will get here, and turn it in to the Secretary for a permanent record.

The Secretary then called the roll. The following States were present:

Alabama,
California,
Connecticut,
Florida,
Georgia,
Idaho,
Illinois,
Indiana,
Iowa,
Kansas,
Kentucky,
Louisiana,
Maine,
Maryland,
Michigan,
Minnesota,
Mississippi,
Missouri,
Nevada,
New York,
N. Carolina,
N. Dakota,
Ohio,
Pennsylvania,
South Carolina,
Tennessee,
Texas,
Utah.
Vermont,
Virginia.
U. S. Dept. Agriculture,

Report of the Executive Committee and the Secretary

ON JULY 12, after the meeting of the association at Seattle, the Executive Committee met for organization with the following members present:

W. P. Cutler, Missouri.
L. Davies, Washington.
James H. Wallis, Idaho.
W. M. Allen, North Carolina.

On motion of Mr. Wallis, Dr. Cutler was elected chairman of the committee for the ensuing year.

Under the constitution the secretary of the association is ex officio secretary to the Executive Committee.

On motion of Mr. Davies, the secretary was instructed to negotiate with H. B. Meyers & Co., publishers, of Chicago, in regard to publishing the proceedings of the Seattle meeting under a similar contract to one under which the proceedings of the meetings for 1910 and 1911 were published.

The secretary was further instructed that in case the proceedings were published to send two copies to the department of each state holding membership in the association.

The secretary was further instructed to send a circular letter to manufacturers and others who would likely be interested, offering for sale copies of the proceedings left on hand after members were supplied, according to instructions, at the price of one dollar per copy.

The secretary was further instructed to and did send the following message by night letter:

"Hon. James Wilson,
"Secretary of Agriculture,
"Washington, D. C.

"The Association of American Dairy, Food and Drug Officials at its annual convention in Seattle, Washington, has unanimously endorsed, by resolution, the action of President Taft in transmitting to Congress a special message calling attention to the urgent necessity of amending the National Food and Drug Act as made apparent by the decision of the United States Supreme Court in what is known as the Johnson cancer case, and urging Congress to enact legislation covering the defect.

[Signed] WILLIAM P. CUTLER.
JAMES H. WALLIS.
L. DAVIES.
W. M. ALLEN.

The committee requested the president of the association to prepare the program for the next annual meeting, the same, according to the constitution, to be submitted to the Executive Committee for approval.

There being no further business, the committee adjourned.

The members of the committee being so far removed from each other and there being no urgent necessity for it, there has been no other meeting of the committee and all other business has been transacted by correspondence.

The secretary carried out the instructions of the committee and did have published by H. B. Meyers & Co., publishers, of Chicago, 200 copies in pamphlet form of the complete proceedings of the Seattle meeting of the association, at a cost of $200 or $1 per copy. Two copies of the proceedings were sent to departments of each state holding membership in the association.

The secretary sent circular letter as instructed in regard to proceedings and received orders for 30 copies of same, which were supplied.

Copies of the resolutions passed by the association at New Orleans in 1910, at Duluth in 1911 and Seattle in 1912, relating to the enactment of compulsory weight or measure branding laws were sent to the chairmen of committees on manufacturers of the House of Representatives and the United States Senate when the measure was before the respective bodies.

After the act had been passed by both houses and while before the President for his approval, copies of the resolutions above referred to, together with the following message, were wired to President Taft:

"The President,
"White House, Washington, D. C.
"I have the honor to send you herewith resolutions passed by the Association of State and National Food and Dairy Departments and its successor, the Association of American Dairy, Food and Drug Officials, at the annual conventions of the same for the years 1910, 1911 and 1912, and beg to respectfully call your attention to same.

"W. M. ALLEN,
"Secretary Association."

The matter of fixing the date for the Mobile meeting was taken up and the president, Mr Davies, communicated with most and probably all of the members of the association in regard to whether the meeting should be held in the spring or fall. He informed the committee that a majority of the members preferred a spring or early summer meeting, and upon hearing from the members of the committee wired the secretary to issue notice for meeting for June 16, 1913. Complying with the requirement of the constitution, the secretary did, on March 10, not less than 90 days previous to the meeting, send out notice as instructed by the president.

The president prepared the program for the meetings of the general association and the program of the sections were prepared by the chairmen and secretaries of the respective sections, and all were, according to the constitution, submitted to the committee for approval. Not less than 30 days previous to the meeting the program was printed and sent by the secretary to the members of the association.

The Executive Committee authorized the secretary to engage the services of a competent reporter to report the proceedings of the meeting, which has been done. The annual membership dues to the association are supposed to be due and payable at the meeting, and the constitution provides that a state or department more than one year in arrears of dues is not entitled to vote. In March, 1913, there being quite a number whose dues for 1912 remained unpaid, the secretary sent notices to them in regard to same and called attention to Article XI, Section I, of the constitution.

Because of the change in the provision of the constitution in regard to voting members, the secretary, about two weeks previous to the meeting, sent a copy of Section I, Article X, on membership, and part of Section I, Article XI, on dues and voting, to the executive officers of the various states and to the Secretary of Agriculture of the United States, and called their attention to the requirements of the same in regard to credentials, dues, etc.

The following departments or states have paid their dues for 1912 and are therefore, under the constitution, entitled to vote on questions before the association for consideration:

Alabama, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, U. S. Department of Agriculture, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

It appears at present that 38 states and the United States Department of Agriculture hold membership in the association and are entitled to all privileges of the same, provided, of course, their annual dues have been paid.

Respectfully submitted,

[Signed] W. P. CUTLER, Chairman;
H. E. BARNARD,
JAMES H. WALLIS,
L. DAVIES,
W. M. ALLEN, Secretary;
Executive Committee.

Dr. W. P. Cutler, Missouri: I move that the report of the Secretary be approved.

The motion was duly seconded.

The Chairman: It is moved and seconded that the report be approved, there being no objection, the report will be so approved. No objection, and it is, therefore, so ordered.

The Chairman: We will next hear from the Committee on Co-operation. Is Mr. Crumbine present?

Mr. M. E. Jaffa, California: Gentlemen, Mr. Crumbine, of Kansas, the chairman is not present, and he has asked me to report to you. He merely wished to say that the questions, with which this Committee has had to deal, are receiving our attention, but that we have nothing more definite to report at this time. This is all the report that the Committee has to make. This whole question will be taken up on Thursday morning and I would suggest that each member of the Association procure a copy of the circular which we have published along these lines, and bring up for discussion any point that is not quite cleared up.

The Chairman: Gentlemen you have heard the report of Committee on Co-operation, and if there is no objection, this report will be accepted. No objection. then it is so accepted.

The Chairman: Are there any other committees that have not yet reported?

Dr. W. P. Cutler, Missouri: I call for the report of the Committee on the Program.

The Chairman: That report will be taken up later. We will hear the report of the Committee on Standard Methods of Bacteriological Analysis.

Report of Committee of Bacteriologists



THE BACTERIOLOGICAL ANALYSES OF MILK— CREAM — WATER — CARBONATED WATER



THE President and Members of the Association of State and National Food and Dairy Departments.

Gentlemen: Your committee on standard methods of bacteriological analyses of foods begs leave to present the following report:

During the past year the committee has been at work on the preparation of standard methods of bacteriological analysis of milk, cream, ice cream, water and carbonated drinks, two of these articles, milk and water, being in the opinion of the committee the most important constituents of human diet that are ordinarily subjected to bacteriological analysis.

In the present state of bacteriological science any modes of procedure or standards are, of course, tentative, and those forming the technical part of this report are no exceptions to the rule. Before another year has passed some change in several details will doubtless need to be made, but this fact should not prevent anyone from making full use of the procedures herein outlined, for your committee believes them to be in accordance with the best practice of the present day. Attention of the members of the association should be called, however, to certain methods or media over the employment of which some uncertainty exists.

Of first importance, perhaps, is the use of gelatin in the examination of water. While the laboratory section of the A. P. H. A. has in its last report advised the abolition of gelatin for quantitative work, yet it is the belief of some sanitarians that it has a place, and should be restored to the list of standard media. The information furnished by gelatin plates at 20°C. may be of greater value at times than that furnished by agar at 37°C. Witness, for example, the efficiency test of a filtration or purification plant. For this reason, your committee has inserted gelatin plating as one of the standard procedures, to be used with agar when advisable but not to exclude it. If only a single medium for quantitative work is to be used, however, agar should be that one, for the reason that it is at present standard with the great body of bacteriologists in this country.

Another matter of some uncertainty, since the publication of Jordan's paper on bile media, is the advisability of its continued use. Bile has, however, probably attained an exalted position in the estimation of most bacteriologists and hence it is too early to predict with certainty what the fate of this culture medium will be. There is strong probability, though, that for the next year at least there will be no material change in its general use.

There has been some difference of opinion among the members of the committee as to reaction of culture media, some advising a reaction that is neutral to phenol phthalein, others a reaction of 1 or 1.5 per cent of acidity. The only apparent reason for adopting acid media is to conform to the accepted reaction promulgated by the American Public Health Association laboratory section, thereby promoting uniformity of technic. To the majority of the committee the promotion of uniformity was considered a sufficient basis for adopting the acid reaction mentioned for water and milk examination respectively.

About the most uncertain of all bacteriological technics and the most difficult often to interpret is the bacterial count. Quantitative standards have been established especially in milk examination, but as to some of them, at least there is room for difference of opinion. For example, what shall be a proper standard for milk delivered to towns and small cities where the supply can be obtained early in the morning and be delivered to the consumers before noon? It is evident that the Class B standard of 100,000 bacteria per c.c. recommended by the N. Y. Milk Committee is high for small communities, since milk containing that number of organisms only a few hours after milking must be extraordinarily dirty. Your committee therefore has in its report lowered the count to 50,000 for milk delivered within six hours of production and to 75,000 for milk delivered within 12 hours of production. These standards seem to be generous for milk that is properly cooled and then maintained at a low temperature.

What should constitute maximum counts for the different grades of cream, and the count for ice cream, is, of course, largely a matter of opinion. One ice cream dealer noted for the excellent quality of his product deliberately allows his cream to ripen well on toward the souring point in order to secure a velvety texture. It would not be safe to permit such a latitude in counts to every dealer, since filthy methods would only be encouraged thereby. The wiser course would be to insist upon fresher, cleaner cream, even at the risk of losing quality in texture.

Finally, your committee invites suggestion and comment on any of the methods or procedures outlined in its report, and should it be continued, expects to add further to the number of foods for which standard methods of examination are to be determined.

Respectfully submitted,

F. H. BILLINGS, Chairman;
DR. J. S. ABBOTT,
DR. D. J. HEALY,
DR. G. W. STILES, JR.,
DR. J. H. WRIGHT,
Committee of Bacteriologists.

Bacteriological Analysis of Milk and Cream

I.

COLLECTION OF SAMPLES.

1. Quantity.

The minimum amount to be collected for a test of any sort should be 25 cubic centimeters, though more is preferable.

2. Containers.

Samples should be collected directly into sterile, cotton-stoppered test tubes which are carried in an iced case that maintains a temperature of 34 degrees to 40 degrees F. (1 degree to 4 degrees C.) The carrying case recommended by the committee on standards for bacterial milk analysis of the American Public Health Association is a desirable kind.

3. Pipettes.

Sterile, straight-sided glass pipettes, 18x⅜ inches with blunt pipette openings ⅛ inch in diameter at the lower ends are to be used for transferring the samples from the bottles, cans or coolers to the test tubes. A sterile pipette is to be used for each sample.

4. Temperature.

Temperature should be taken immediately following the removal of the sample, while the milk or cream is still mixed. A quickly-registering thermometer is employed and should be allowed to remain one minute before a reading is taken. Standardize the thermometer for at least 10 degrees on each side of the legal temperature limit.

5. Representative Samples.

To obtain representative sample from bottles, invert bottle back and forth and shake vigorously at each count, while slowly counting 50; or shake well with the stoppered or capped end down, provided the container is not so full as to prevent mixing, then stir with the pipette that is to be used for taking the sample, emptying it before the sample is taken. In the case of open tanks or large cans a proper mixture may be obtained by stirring with the long handled dipper generally found in use.

Samples of ice cream should be taken from the center of the frozen mass with a sterile spoon and placed in a sterile flask to melt, after which dilutions may be made as for milk or cream.

6. Time Elapsing Before Plating.

Samples should be iced. Plate as soon as possible, at least within 4 hours after collection.

II.

STERILIZATION OF GLASSWARE.

Glassware, such as bottles, flasks, test tubes, pipettes, petri dishes and so forth shall be sterilized by heating for 1 hour at about 160 degrees C., excepting that containers for media or other material which is to be sterilized in the autoclave need not be subjected to such preliminary sterilization.

III.

MEDIA.

1. Agar.

The standard medium for determining the number of bacteria by the plating method is 1½ per cent agar with a reaction that is 1.5 per cent acid to phenolphthalein. It is made as follows:

(1) Infuse 15 grams of agar in 500 c.c. of distilled water for 24 hours in the refrigerator.

(2) Boil for half an hour and make up weight to 500 g. or digest for 10 minutes in the autoclave at 110 degrees C. Let this cool to about 60 degrees C.

(3) Infuse 500 g. finely chopped lean beef for 24 hours with its own weight of distilled water in the refrigerator.

(4) Make up any loss by evaporation.

(5) Strain infusion through cotton flannel using pressure.

(6) Weigh filtered infusion.

(7) Add Witte's peptone 2 per cent.

(8) Warm on water bath, stirring until peptone is dissolved and not allowing the temperature to rise above 60 degrees C.

(9) To the 500 grams of meat infusion (with peptone) add 500 grams of the 3 per cent agar, keeping the temperature below 60 degrees C.

(10) Adjust to final reaction.

(11) Heat over boiling water (or steam) bath thirty minutes.

(12) Restore weight lost by evaporation.

(13) Titrate after boiling one minute to expel carbonic acid.

(14) Adjust reaction to final point desired, adding normal sodium hydrate.

(15) Boil 50 minutes over free flame constantly stirring.

(16) Restore weight lost by evaporation.

(17) Filter through absorbent cotton and cotton flannel or coarse filter paper, passing the filtrate through the filter repeatedly until clear.

(18) Titrate and record the final reaction.

(19) Tube (10 c.c. to a tube) and sterilize in autoclave 1 hour at 15 lbs. pressure or in the streaming steam for 20 minutes on three successive days.

2. Broth.

(1) Infuse 500 g. finely chopped lean meat 24 hours with 1,000 c.c. distilled water in refrigerator. Restore loss by evaporation.

(2) Strain infusion through cotton flannel.

(3) Add 1 per cent peptone. Warm on water bath, stirring until peptone is dissolved.

(4) Heat over boiling water, or steam bath thirty minutes. Restore loss by evaporation.

(5) Titrate. adjust reaction to 7.5 per cent by adding normal sodium hydrate. Boil 5 minutes over a free flame, constantly stirring. Restore loss by evaporation.

(6) Filter through absorbent cotton in cotton flannel, passing the liquid through until clear. Titrate and record final reaction.

(7) Tube, using 10 c.c. to each tube. Sterilize.

3. Lactose—Peptone—Bile.

This medium is made with fresh ox bile to which 1 per cent of lactose and 1 per cent of peptone have been added. Heat over boiling water or in steam 30 minutes. Restore loss by evaporation. Titrate, adjust to neutral and sterilize. Record final reaction.

IV.

PLATING.

1. Apparatus.

Nine or 10 centimeter petri dishes with earthenware covers, and straight-sided 1 c.c. volumetric pipettes are recommended for use in plating. Dilutions may be made in 8 oz. bottles for 99 c.c. water blanks, or in test tubes measuring at least 18 millimeters in diameter for 9 c.c. water blanks. In either case exact amounts of sterile dilution water should be measured into sterile containers just before use, no sterilization in final containers being needed.

2. Dilution Technique.

The dilutions recommended are 1-10, 1-100, 1-1,000, 1-10,000, 1-100,000, 1-1,000,000.

The 1-10 dilution is made by shaking the sample 25 times and transferring 1 c.c. to a test tube containing 9 c.c. of sterile water.

The 1-100 dilution is prepared in the same way, except that a bottle with 99 c.c. of sterile water is substituted for the test tube containing 9 c.c.; or two 9 c.c. water blanks may be used.

The 1-1,000 dilution is prepared by first making the 1-100 dilution, shaking 25 times, and transferring 1 c.c. of the dilution to a test tube containing 9 c.c. of sterile water; or by the use of three 9 cc. water blanks.

The 1-10,000, 1-100,000 and 1-1,000,000 dilutions are made in the same manner, by dilutions of 1-100, 1-1,000, 1-10,000 or 1-100,000.

A large enough series of dilutions should be made so that a plate having a colony count ranging from 40 to 200 will be obtained, this plate being used for estimating the number of bacteria in the sample. It is recommended that a duplicate series of plates be run, the average of the two plates having the optimum count being used for the estimate. The plates should not vary more than 10 per cent.

3. Plating Technique.

For plating it is convenient to have a water bath in which to melt the agar, a water-jacketed bath for keeping it at the required temperature, and a wire rack (for holding the tubes) that fits both water baths.

The agar after melting should be kept in the water-jacketed bath between 40 degrees and 45 degrees C. for at least

15 minutes before using, to make sure that the agar itself has reached the temperature of the surrounding water.

With a sterile pipette transfer 1 c.c. of each of the desired dilutions (previously shaken 25 times) to the petri dishes using care to raise the covers only as far as necessary to insert the end of the pipette. Before transferring the melted agar to the plates, wipe the water from each tube flame, then remove the plug, pass the mouth of the tube through the flame, and pour the agar into the plate, using care to avoid undue exposure or smearing the edge of the plate. Mix the agar and diluted milk thoroughly by a rotary motion. Allow 15 minutes at room temperature for the agar to harden, then invert and place in the incubator.

4. Controls.

A control plate should be made for each series in order to serve as a check on the agar, water, air, petri dishes and pipettes.

5. Incubation.

Plates should be incubated at 37 degrees C. for 48 hours in a saturated atmosphere.

6. Counting.

Counts below 50,000 are distinguished by five thousands.

Counts between 50,000 and 100,000 are distinguished by ten thousands.

Counts between 100,000 and 500,000 are distinguished by fifty thousands.

Counts between 500,000 and 5,000,000 are distinguished by hundred thousands.

Counts above 5,000,000 are distinguished by millions.

The whole number of colonies on a plate should be counted, a fractional count only being resorted to in case of necessity. When colonies are small or indistinct, a magnification of 3 or 4 diameters is permitted.

The minimum number of bacterial tests of milk necessary to warrant the publication of results shall be 4 consecutive bacterial counts of separate samples within a period of not more than 4 weeks.

7. Expression of Results.

It is recommended that North's modification of Levy's method of giving each bacterial count a rating value be used. By this method the final statement of a series of bacterial counts is given as a single figure which expresses the sanitary character of the milk in terms of bacteria per cubic centimeter, and which is to be known as the *bacterial content.*

It is recommended that the rating of a municipal milk supply be done in accordance with the method of Levy.

V.

DIRECT MICROSCOPICAL EXAMINATION.

The Stewart-Slack method is recommended for making direct microscopical examination. Information may be obtained by this method as to the following points:

(1) The number of animal cells in the sample

(2) The number of long-chain streptococci (at least 6 elements in a chain).

(3) The bacterial count.

(4) The nature of the dirt and source of bacteria in the milk.

In determining the presence or absence of inflammatory conditions in the udder the number of both body cells and streptococci should be considered, a high cell count together with numerous streptococci giving positive indications. In determining the bacterial count by direct microscopical examination, estimates that are near or under 500,000 per cubic centimeter should not be considered, plating being resorted to in such cases. The method has its application where minimum standards are 500,000 or over.

The smears may be stained with an aqueous solution of methlene blue or with some blood stain as Jenner's or Wright's stain.

VI.

TEST FOR GAS-PRODUCING ORGANISMS.

Tests for gas-producing organisms may be made from a series of dilutions of the raw milk by placing 1 c.c. of each dilution in fermentation tubes containing lactose-peptone-bile. B. coli should not be found in 1 c.c. in Class A milk or in 0.1 c.c. in Class B milk delivered within 6 hours of production, or in 0.01 c.c. in Class C milk delivered within 12 hours of production.

In testing pasteurized milk 1 c.c. of the milk is placed in the lactose-peptone-bile fermentation tubes, without dilution.

VII.

DIRT TEST.

A cotton disc 1 inch in diameter is the standard size for collecting dirt by filtration from 1 quart of milk. A proportionate area is to be used for amounts less than 1 quart, e. g. a disc approximately .7 inch in diameter for a pint. The dried cotton disc should be sent to the milk dealer concerned when practical results from the test are desired.

VIII.

ROUTINE LABORATORY PROCEDURE.

(1) Make a direct microscopical examination of a stained smear, noting the approximate number of bacteria, the approximate number of animal cells, and the presence or absence of long-chain streptococci.

(2) Plate the samples, or at least those of which the estimate from the microscopical examination shows a bacterial content near or more than the number permitted by the regulation.

(3) Make lactose-peptone-bile fermentation tubes by inoculation 1 c.c., or a 1-1,000 dilution of milk, or more dilutions.

(4) Incubate the plates at 37 degrees for 48 hours and the fermentation tubes at 37 degrees for 48 hours to 72 hours.

(5) Count the colonies in the plates having the optimum number.

(6) From plates showing numerous pin point colonies, transfer 10 or more to broth, incubating the cultures at 37 degrees for 15-24 hours. Examine for long-chain streptococci.

It is recommended that the microscopical examination of smears, and plating, form a part of every routine examination; that the determination of bacterial content be the standard bacteriological test for the sanitary condition of milk or cream; and that the use of the other tests mentioned be left to the option of the individual workers.

IX.

BACTERIOLOGICAL STANDARDS.

(1) Milk and cream samples shall be considered as belonging to one of 4 classes, depending upon their bacterial content.

Class A milk should contain less than 10,000 bacteria per cubic centimeter.

Class B milk should contain less than 100,000 bacteria per c.c. It should not contain over 50,000 bacteria per c.c. if delivered within 6 hours of production, nor over 75,000 per c.c. if within 12 hours of production.

Class C milk should contain less than 1,000,000 bacteria per c.c. before pasteurization, and less than 50,000 per c.c. after pasteurization, and should not contain colon bacilli in 1 cubic centimeter as determined by gas production in lactose-peptone-bile, morphology, motility, non-liquefaction, and reduction of nitrates.

Class D milk contains over 1,000,000 bacteria per cubic centimeter, and should not be used for drinking purposes.

Class A cream should not contain over 30,000 bacteria per cubic centimeter.

Class B cream should not contain over 300,000 bacteria per cubic centimeter.

Class C cream should not contain over 5,000,000 bacteria per cubic centimeter before pasteurization, nor over 50,000 bacteria per cubic centimeter after pasteurization. It shall not contain over 100,000 bacteria per c.c. when delivered to the consumer.

Class D cream contains more than 5,000,000 bacteria per c.c. and is recommended for cooking only, after pasteurization.

Ice Cream.—The standards for ice cream shall be the same as those for cream.

(2) A cell content of 500,000 or over in mixed milk, together with the presence of long-chain streptococci in a smeared sediment (over 100,000 per c.c. in plates) is indicative of insanitary milk.

(3) Gas-production to the amount of 15 per cent or more in lactose-peptone-bile fermentation tubes containing 1 c.c. of Class A milk or 0.1 c.c. of Class B milk delivered within 6 hours of production, or 0.01 c.c. of Class B milk delivered within 12 hours of production shall be indicative of excessive filth pollution.

X.

PATHOGENIC ORGANISMS—TUBERCLE BACILLI.

(1) Pint or quart samples of whole milk should be thoroughly mixed by shaking vigorously. Fifty cubic centimeters are then transferred to a large

centrifuge flask, 100 c.c. of sterile water added and the whole centrifugalized for 1 hour at 2,000 revolutions per minute. Guinea pigs are then inoculated subcutaneously in the abdominal wall with 5 c.c. of the sediment.

Guinea pigs not dying within two months are tested by a subcutaneous injection of 2 c.c. of crude tuberculin and if not killed by the tuberclin in 24 hours should be chloroformed and autopsied.

Smears, cultures and secoions should be made from lesions or abnormalities of any sort. Smears are stained with carbol-fuchsin for acid-fast bacilli. Cultures are made on glycerinized potato and glycerine agar to rule out Rabinowitch's quick-growing acid-fast bacillus. Sections are stained with carbol-fuchsin for tubercle bacilli, and also with haematin and eosin for histological appearances. Tuberculosis guinea pigs may be differentiated from non-tuberculosis pigs by the injection of 2 c.c. of crude tuberculin subcutaneously. Toberculous pigs should die within 24 hours.

XI.

CLASSIFICATION OF MILK.

Milk should be graded and classified. The classification should be the same for both large and small cities and towns. Milk should be graded into four classes, as follows:

Class A—Certified milk or its equivalent.
Class B—Inspected milk.
Class C—Pasteurized milk.
Class D—Milk not suitable for drinking purposes.

Class A. Certified Milk or Its Equivalent.

The use of the term certified should be limited to milk produced in conformity with the requirements of the American Association of Certified Milk Commission.

Milk of an equivalent character should conform to the following requirements: It should be produced at dairies subjected to frequent inspection and the products of which are subject to frequent analyses. The cows producing such milk must be properly fed and watered, free from tuberculosis as shown by the tuberculin test and physical examination by a qualified veterinarian, and from all other communicable diseases, and from diseases and conditions whatsoever likely to deteriorate the milk. They must be housed in clean, properly ventilated stables of sanitary construction, and must be kept clean. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, dysentery, scarlet fever, and septic throat infections, or other infections likely to be conveyed by the milk. Milk must be drawn under all precautions necessary to avoid infection, and be immediately strained and cooled, placed in sterilized bottles, and kept at a temperature not exceeding 50 degrees F. 10° C.) until delivered to the consumer. Pure water, as determined by inspection and chemical and bacteriological examination, is to be provided for use throughout the dairy farm and dairy. Milk of this class should contain less than 10,000 bacteria per cubic centimeter, and should not be more than 28 hours old when delivered.

Class B. Inspected Milk.

This class should consist of clean raw milk from healthy cows, as determined by the tuberculin test and physical examination by a qualified veterinarian, and from dairies that score not less than 70 on the Government score card. The cows are to be fed, watered, housed, and milked under good conditions, but not necessarily equal to the conditions prescribed for Class A. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other infectious diseases liable to be conveyed by milk. This milk is to be delivered in sterilized containers and is to be kept at a temperature not exceeding 50 degrees F. (10°C.) until it reaches the consumer. It should contain less than 100,000 bacteria per cubic centimeters. Pasteurization of milk of this class is optional. If pasteurized it shall be designated as "pasteurized inspected milk."

Class C. Pasteurized Milk.

Milk from dairies not able to comply with the requirements specified for Classes A and B should be pasteurized under official supervision before being sold and should be sold under the designation "pasteurized milk." Milk for pasteurization should be kept at a temperature not exceeding 50 degrees F. (10°C.) at all times while in transit from the dairy farm to the pasteurizing plant. After pasteurization it should be placed in sterilized containers (if not pasteurized in such containers) and should be cooled at once to 50 degrees F. (10°C.) and kept below that temperature until delivered to the consumer. No cows in any way unfit for the production of milk for use by men, as determined by physical examination, shall be permitted to remain in any dairy producing milk of Class C. Such milk before pasteurization should contain less than 1,000,000 bacteria per cubic centimeter, and after pasteurization less than 50,000, and it should not contain colon bacilli in 1 cubic centimeter as determined by cultural methods. Pasteurized milk should be delivered to the consumer within less than 48 hours after pasteurization. The repasteurization of milk should be prohibited.

Class D. Milk Not Suitable for Drinking Purposes.

Milk containing over 1,000,000 bacteria per cubic centimeter, or from farms scoring less than 40 per cent, may be allowed to be sold for cooking and industrial purposes only after having been pasteurized or heated to a higher temperature. Such milk should be delivered in a distinctive container, and should not be allowed to be sold for drinking purposes.

XII.

CLASSIFICATION OF CREAM.

Cream should be classified into the same grades as milk, in accordance with the requirements for the grades of milk, with special bacterial standards which should not exceed 30,000 per cubic centimeter in the case of Grade A; 300,000 per cubic centimeter in the case of Grade B; 5,000,000 per cubic centimeter before and 50,000 after pasteurization, with not over 100,000 per c.c. at delivery, for Grade C; not over 5,000,000 for Grade D.

XIII.

PASTEURIZED MILK OR CREAM.

Pasteurized milk or cream is heated to a temperature of not less than 140 degrees F. (60 degrees C.) for not less than 20 minutes; or not over 155 degrees F. (68 degrees C.) for less than 5 minutes; and for each degree of temperature over 140 degrees F. (60 degrees C.) one minute less time if Fahrenheit scale is used, or 2 minutes less time if Centigrade scale is used, may be deducted.

Milk or cream should be cooled immediately to 50 degrees F. (10 degrees C.) or below after pasteurization, and kept at or below that temperature.

In order to allow a margin of safety under commercial conditions, it is recommended that the minimum temperature during the period of holding be 145 degrees F. and the holding time be 20 minutes.

Pasteurization in the final container is preferable to pasteurization in bulk.

XIV.

ACKNOWLEDGMENTS AND RECOMMENDATIONS.

Acknowledgment is herewith made that the standard methods of milk analysis outlined in this report have been largely derived from those of the Commission on Milk Standards appointed by the New York Milk Committee, which with a few exceptions are based, in turn, on the report of the Committee on Standard Methods of Bacterial Milk Analysis, A.P.H.A.

There is no branch of the pure food department work of the states that gives as much trouble as milk, and anything on the subject of milk by experts is of unusual interest. It is not alone the question of determining what is bad milk and how to discover and classify: it is putting this knowledge to effect in use that seems to bother food officials. This is as largely because of our peculiar lines—imaginary lines—that divide communities and authorities. The State food department may know how to find good and bad milk. The places where the different varieties of milk are to be found may be known and a law may be on the statute books giving the department police power. But always where a certain line is crossed someone is there to be stepped on and claim jurisdiction. Not perhaps in so many words, but rather that he will make it known that he is looking after that particular part of the work, and would like to have the state officials harmonize with him by going home and minding their own business. Milk gives the State food officials trouble in more ways than one, and it will continue to do so until such time as the various municipalities harmonize in fact, so that the milk product of a state may be followed from cow to consumer with all interested officials, including live stock commissioners, State and local boards of health, food commissioners and good citizens working together to give the people such a quality of milk as they deserve. The great burden of the work falls upon the food commissioners and they should be upheld in their effort to better our milk supply.

Bacteriological Sanitary Examination of Water

I.
COLLECTION OF SAMPLES.

1. Containers.

Glass-stoppered, thoroughly cleansed sterilized containers holding at least 60 c.c. (2 ounces) shall be used for the collection of samples. For iced samples which must remain over 12 hours before planting, a container holding over 120 c.c. (4 ounces) shall be used. The two amounts, 60 c.c. and 120 c.c. constitute minimum amounts respectively to be collected.

Sample bottles shall be wrapped in sterile paper or cloth or shall have their necks wrapped in foil or protected by sterile metal cases when shipment is to be made.

2. Sampling.

Faucets and pumps shall be used continuously for 3 minutes before the sample is taken.

In collecting from wells with buckets, discard two buckets of water at a distance far enough from the well to prevent back flow, then pour from the third bucketful of water directly into the sample bottle.

In collecting from a stream, reservoir or other body of relatively quiet water, move bottle, stopper removed, mouth forward several inches beneath the surface.

3. Time Interval Between Collection and Analysis.

Samples should be examined as soon as possible after collection, and should be well iced, if more than one-half hour is to elapse before collection and planting. The temperature of iced samples should be between 0° and 5°C.

II.
STERILIZATION OF GLASSWARE.

All glassware that is to contain samples or media should be sterilized by dry heat for 1 hour at about 160° C., excepting that containers for media or other material which is to be sterilized in the autoclave need not be subjected to such preliminary sterilization. Option is given to sterilize glassware in steam at 120° C. for 15 minutes.

III.
QUANTITATIVE BACTERIOLOGICAL EXAMINATION—MEDIA.

I. Agar. The standard medium shall be broth agar which is made in the same manner as for milk analysis

II. Gelatin.

(1.) Infuse 500 grams lean meat 24 hours with 1,000 c.c. distilled water in a refrigerator.

(2.) Make up loss by evaporation.

(3.) Strain infusion through cotton flannel.

(4.) Weigh filtered infusion.

(5.) Add 1 per cent Witte's peptone and 10 per cent gold label gelatin that has just previously been dried at 105° C. for 30 minutes.

(6.) Warm on water bath, stirring till the peptone and gelatin are dissolved, not allowing the temperature to rise above 60 C.

(7.) Titrate after boiling portion to be tested 2 minutes to expel carbon dioxide.

(8.) Adjust reaction to neutral by adding normal sodium hydrate or hydrochloric acid as required.

(9.) Heat over boiling water (or steam) bath for 40 minutes.

(10.) Restore loss by evaporation.

(11.) Readjust to neutral, if necessary and boil 5 minutes over free flame, constantly stirring.

(12.) Make up loss by evaporation.

(13.) Filter through a rough absorbent cotton and cotton flannel, passing the filtrate through the filter until clear.

(14.) Titrate and record the final reaction.

(15.) Tube, using 10 c.c. of medium in each tube.

(16.) Sterilize 15 minutes in the autoclave at 120° C., or for 30 minutes in steaming steam on three successive days. Put the gelatin at once into ice-water till solidified.

(17.) Store in the ice-chest in a moist atmosphere, to prevent evaporation.

While agar is the standard medium if only one kind is used, it is realized that occasion arises when gelatin at 20° C. gives an equal if not greater amount of information than agar at 37° C. Hence it is recommended that the use of gelatin plates be encouraged when the quality of the bacteriological determination is enhanced by it, but such use shall not preclude that of agar at 37° C., but shall be in addition thereto.

3. Incubation.

Agar plates shall be incubated for 24 hours at 37° C. Gelatin plates shall be incubated at 20° C. for 48 hours.

4. Plating Technique.

Shake sample at least 25 times, then remove 1 c.c. of the sample with a sterile pipette and deliver it into a sterile petri dish, 9 or 10 c.m. in diameter. If there is reason to suspect that over 200 colonies will appear on the plate mix the 1 c.c. of sample in 9 c.c. of sterile water in a test tube measuring at least 18 m.m. in diameter, or else in a flask. Shake 5 times and measure 1 c.c. of the dilution into a petri dish. Higher dilutions may be made as needed, using additional dilution tubes.

To the liquid in the petri dish add 10 c.c. of standard agar that has been cooled to about 40 C., or gelatin. Mix medium and water thoroughly. Allow the medium to harden on a level surface and then incubate the plate or plates in a dark, well ventilated incubator that maintains a practically saturated atmosphere. Plates showing a count greatly in excess of 200 should be discarded for those from a higher dilution.

Porous earthenware covers for the plates are useful in preventing colonies from spreading by the water of condensation.

5. Expression of Results.

In order to avoid fictitious accuracy and yet to express the numerical results by a method consistent with the precision of the work the rules given below shall be followed:

Numbers of Bacteria per c.c.

From 1 to 50 recorded as found.

From 51 to 100 recorded to the nearest 5.

From 101 to 250 recorded to the nearest 10.

From 251 to 500 recorded to the nearest 25.

From 501 to 1,000 recorded to the nearest 50.

From 1,001 to 10,000 recorded to the nearest 100.

From 10,001 to 50,000 recorded to the nearest 500.

From 50,001 to 100,000 recorded to the nearest 1,000.

From 100,001 to 500,000 recorded to the nearest 10,000.

From 500,001 to 1,000,000 recorded to the nearest 50,000.

From 1,000,001 to 10,000,000 recorded to the nearest 100,000.

IV.
TESTS FOR THE BACILLUS COLI GROUP.

1. Presumptive Tests.

The medium for this test shall be lactose-peptone bile which is made by adding to fresh ox bile, (or a 10 per cent solution of dry fresh ox gall) one per cent of peptone and one per cent of lactose, the whole being titrated and adjusted to a reaction that is neutral to phenolphthalein, after which it is sterilized.

Fermentation tubes of the Smith or the inverted vial type may be used to which amounts of original sample of 10 c.c., 1 c.c., 0.1 c.c., 0.01 c.c., etc., are added, the degree of dilution to be extended so as to include an amount containing an insufficient number of B. coli for a positive test. It is recommended that the dilutions when necessary be such that except in the case of the 10 c.c., 1 c.c. of water be added to the fermentation tube: on that in no case shall the amount of water be in excess of 25 per cent of the amount of medium in the fermentation tube.

To increase the accuracy of the quantitative determination of the B. coli present and to avoid anomalies, 5 tubes of each amount of sample used except the 10 c.c., should be prepared; in routine work, however, when a very large number of samples is being handled one test of each amount of sample may have to suffice. Colon bacilli in 10 c.c. but not in smaller amounts shall indicate that the sample has come from a source in which direct contamination by unattenuated B. coli has not occurred, but that such a source may bear watching. B. coli in amount of 1 c.c. or smaller shall be considered evidence of recent contamination by sewage, the degree of contamination being measured by the number of organisms in 1 c.c. of the original sample.

As a bacteriological test per se is very liable to lead to erroneous results, no test shall be considered sufficient to condemn a source of supply till a satisfactory sanitary survey of the environment from which the sample was taken shall have been taken at, or about

the time the bacteriological examination is made, such sanitary survey to confirm the bacteriological findings.

A positive presumptive test in a lactose-peptone bile fermentation tube shall be one in which at least 10 per cent of gas occurs after incubation for 24 to 48 hours at 37 C. The presence of gas shall be considered indicative of contamination by bacilli of the B. coli group.

2. Definite Tests for the B. Coli Group.

When time permits, the following procedures are recommended for routine tests for the presence of the B. coli group.

Procedure A.

This method is applicable for sewages and contaminated water in which B. coli is present in 1 c.c. or less.

Prepare litmus lactose agar for plating as follows:

(1) Prepare standard agar in accordance with directions in Section III, 1.

(2) Add to the agar 1 per cent of lactose, adjusting to neutral (phenolphthalein).

(3) Sterilize the lactose agar for 30 minutes on each of 3 consecutive days.

(4) Just before pouring the agar into the petri dishes, add sterile azolitmin (or litmus) solution. A 1 per cent solution of Kaulbaum's azolitmin is good for the purpose, and it needs no correction for acidity.

The dilution for plating are made as for quantitive work.

Petri dishes having porous terra cotta tops should be used, the plates should be incubated at 37° C. for 12 to 24 hours. If no red or gas-producing colonies are found, then B. coli may be considered absent in the volume of the sample tested. If colonies resembling B. coli are noted, obtain pure cultures of each if the total number does not exceed 5 or 6. If the number is larger, use at least 5 colonies but take them from an aliquot part of the plate.

Procedure B.

This is a presumptive test that is followed by a confirmative test. Only the Smith type of fermentation tubes should be used.

Prepare cultures in lactose-peptone-bile fermentation tubes as for the presumptive tests. Incubate the tubes at 37° C. for 24-48 hours. As soon as gas is formed in any of the tubes (usually about 16-24 hours) plate at once in lactose litmus agar, using a portion of the sediment at the bottom of the closed arm. Continue the test as in Procedure A.

If colonies are isolated that in pure culure resemble B. coli, make subbcultures on slant agar (to preserve the culture) and in lactose broth fermentation tube, gelatin tube, and in esculin bile broth.

The characteristics of the B. coli group are: fermentation of dextrose and lactose with gas production, short, non-spore bearing bacillus with rounded ends. Gram negative, facultative anatrobe, growing at 20° C in gelatin and 37° C on agar, non-liquefying in 14 days on gelatin, giving positive test with esculin.

3. Preliminary Cultivation.

If it is desired to obtain all of the B. coli present in a given amount of the sample, attenuated as well as vigorous forms, the procedure may be modified by recourse to preliminary cultivation in liver broth which is made as follows:

(1) Chop 500 grams beef liver into small pieces and add 1,000 c.c. of distilled water. Weigh the infusion and container.

(2) Boil slowly for two (2) hours in a double boiler, starting cold and stirring it occasionally.

(3) Make up any loss in weight by evaporation and pass through a wire strainer.

(4) To the filtrate add ten (10) g. of peptone, ten (10) g. of dextrose and one (1) g. of potassium phosphate.

(5) After this mixture in a double boiler and stirring it for a few minutes to dissolve the ingredients, titrate with sodium hydrate, using phenolphthalein as an indicator, and neutralize with normal sodium hydrate.

(6) Boil vigorously for thirty (30) minutes in a double boiler, and five minutes over a free flame with constant stirring to prevent the caramelization of the dextrose.

(7) Make up the loss in weight by evaporation and filter through cotton flannel and filter paper.

(8) Tube and sterilize in an autoclave for 15 minutes at 120° C. (15) pounds.

4. Presumptive Test for B. Coli.

II. The presumptive test for B. coli and all other gas-forming bacteria growing at 37° C., may be made by planting dilutions of the water (usually one-tenth, one and ten cubic centimeters) into liver broth. Transplanting from these tubes into lactose bile within from six to twelve hours after incubation gives practically all B. coli whether attenuated or otherwise.

5. Esculin Media.

Dissolve 2.5 grams commercial bile salt, and 10 grams peptone (Witte) in 1,000 c.c. of distilled water. Neutralize with a normal solution of sodium hydrate. Cool below 60 C., add the whites of two eggs or a sufficient quantity of a solution of albumen, bring to the boil and filter as soon as the albumen has coagulated properly. Try the acidity and neutralize, if necessary, and then add to the clear, hot filtrate 0.1 gram aesculin (Merck) and 1 grain iron citrate scales (Merck). After these substances are dissolved test the acidity with decinormal soda soluion. In case the acidity is too high add alkali until the reaction is 0.6, and if the acidity is too low add more iron citrate until the reaction is 0.6.

Agar: This medium is made in same manner as the broth with the addition of 15 grams of agar.

6. Standard Broth.

Standard broth shall be prepared as follows: Infuse 500 g. chopped lean meat 24 hours with 1,000 c.c. distilled water in refrigerator. Restore loss by evaporation. Strain infusion through cotton flannel. Add one per cent peptone. Warm on water bath, stirring until the peptone is dissolved. Heat over boiling water (or steam) bath 30 minutes. Restore loss by evaporation. Titrate Adjust reaction to neutral by adding normal hydrochloric acid or normal sodium hydrate, as required. Boil 5 minutes over free flame, constantly stirring. Restore loss by evaporation. Filter through absorbent cotton and cotton flannel, passing the liquid through until clear. Titrate and record final reaction. Tube using 10 c.c. in each tube. Sterilize.

7. Gelatin. See Section III. 2.

V.
EXPRESSION OF RESULTS.

A single cross (✢) indicates a positive result; a double cross (✢-✢) an emphatically positive result; a zero (0) indicates a negative result; a question mark (?) indicates that the determination was uncertain or variable; a blank space indicates that no determination was made.

VI.
ISOLATION AND DETERMINATION OF THE TYPHOID BACILLUS.

The isolation of B. typhosus from contaminated water is at the present time impracticable as a routine procedure where a considerable number of samples have to be tested. Occasions might arise, however, when it would be advantageous to demonstrate the actual presence of the typhoid bacillus in a water supply in order the more definitely to establish its unsanitary condition.

A successful method for the isolation of B. typhosus from water is based on a preliminary cultivation of the sample of water, or sewage to be tested in lacotse bile as an enrichment medium and plating from this on Hesse agar, Conradi-Drigalski, Endo, or Hiss media to get the characteristic typhoid colonies.

The preliminary cultivation in the lactose-bile solution greatly increases the number of the B. typhosus present so as to render its identification more definite. It often gives more characteristic colonies where there is uncertainty in identification and at the same times it preserves the cultures for further transplantations when second or third tests are necessary.

Lactose-bile medium—This medium consists of sterilized undiluted fresh ox-gall (or a 10 per cent, solution of dry fresh ox-gall) to which has been added 1 per cent of peptone and 1 per cent of lactose. Fermentation tubes holding 40 c.c. of the sterilized liquid are inoculated with varying amounts up to 10 c.c. of the water or sewage to be tested. After 48 hours of incubation at 37° C. at least 20 per cent of the length of the fermentation tube will be filled with gas if B. coli is present. If many colon bacilli are present then tests should be made for B. typhosus.

B. typhosus grows even more abundantly in lactose bile than does B. coli, other organisms are rapidly over grown, and B. coli itself may be finally over grown by B. typhosus. But as B. typhosus does not produce a gas and does not indicate its presence by the appearance of the medium it is necessary to isolate the organism by plating out dilutions preferably on Hess agar, but Conradi-Drigalski, Endo, or Hiss media may be used for this purpose.

Hess agar.—This medium easily distinguishes between typhosus and B. coli, and unlike other distinguishing media has less tendency to reduce the number of typhoid bacilli present. By its use B. typhosus may be readily isolated from preliminary cultivation in lactose bile. The preliminary cultivation in bile is necessary in order to increase

the typhoid germs in numbers over the various other species always present in contaminated supplies. Hesse Agar.

Agar previously heated 105 C for 30 minutes, 4.5 g.
Peptone, Witte, 10 g.
Liebig's Extract of Beef, 5 g.
Sodium Chloride, 8.5 g.
Distilled Water, 1,000 c.c.

Dissolve 4.5 g. of dry agar in 500 c.c. distilled water by previous soaking and then heating over a free flame, making up loss in weight by exaporation. Into another vessel 500 c.c. of distilled water is poured and to this added 10 g. of peptone, 5. g. of Liebig's Beef Extract, and 8.5 g. of salt. This is heated until all is dissolved and the loss in weight by evaporation is made up by adding distilled water.

Add the two solutions together; boil 30 minutes; make up loss in weight with distilled water, filter through absorbent cotton held in the funnel by cotton flannel, passing the filtrate through several times until perfectly clear. Test the reaction; adjust, if necessary, to neutral, and tube, using 10 c.c. of medium in each tube. Sterilize for 15 minutes at 120° C. (15 pounds pressure) in an autoclave. Cool with running tap water and store in an ice-chest, the air of which is saturated with moisture.

The cultures must be incubated in a 37° C. incubator also with moisture-saturated air so that the medium will not change its consistency. It is a decided improvement to use porous earthenware tops to the Petri dishes instead of the ordinary glass tops in order to prevent spreading and to keep the colonies in their natural and characteristic condition.

Plating Procedure.

Eight tubes containing, each 9 c.c. of sterilized water are set in a rack together with a series of eight sterilized petri dishes and both numbered from 1 to 8.

Into Tube 1 place 1 c.c. of bile solution containing the water or sewage to be tested and which has been previously inoculated and incubated at least 24 hours at 37° C. After thoroughly mixing with the 9 c.c. of distilled water in the tube place 1 c.c. of this mixture into Plate 1. and 1 c.c. into Tube 2. From Tube 2 place 1 c.c. into Plate 2, and 1 c.c. into Tube 3. Proceed in this manner through the series. Now add to each Petri dish 10 c.c. of the liquefied Hesse agar cooled to 40° C. and mix thoroughly. First cool in the ice chest to set the medium and incubated at 37 C. for 24 hours.

When water or sewage is incubated in bile solution, varying dilutions in bile tubes may be made to obtain the approximate number of B. typhosus present, but, in practice, the presence of the germ is all that it is necessary to determine.

B. typhosus is characterictic on Hesse agar only when the dilution is sufficiently high to produce but a few bacteria on the plate. Colonies of a large size are formed, often several centimenters in diameter which are distinguished from B. coli and other forms, by a broad translucent or scarcely turbid zone between the white opaque center or nucleus and the perfectly round narrow white seam or edge, which characteristic appearance is maintained on standing one or more days in the ice chest.

Cultures of typhoid bacilli isolated may be tested by agar and gelatin plates, stabs, and slopes, indol reaction, milk, litmuslactose agar, dextrose broth, lactose bile, potato, Hiss medium, Conradi-Drigalski medium, Hesse agar, morphology, motility, pathogenesis, Pfeiffer reaction, absorption test and Widal reaction (1-1,000). Negative results are obtained on gas and usually on indol production, and positive or characteristic results are obtained by the other tests. Animal subcutaneous inoculations, with moderate quantities of 24-hour broth cultures give negative results. Large quantities produce toxemia.

B. paratyphosus, B. pyocyaneous, B. fluorescenes liquefaciens, and forms of very motile B. coli sometimes give a similar appearance. They may be readily distinguished by the absence of transparent zone and by the Widal reaction. The fermentation test or the planting in the various differential media may be necessary in cases of indecision.

The Widal reaction may be made directly from the outer edge of the colonies on the Hesse plate as well as by first planting in beef broth for a period of from 12 to 24 hours.

The Widal Test.

To make the Widal test, take up a small portion of the culture in a capillary glass tube, place a drop on a cover glass, and invert it over a rubber ring on a glass slide, using vaseline on the edges so as to prevent evaporation and consequent movement by currents in the drop.

If the bacteria are motile rods resembling B. typhosus. add a drop of equal size of highly diluted anti-typhoid serum. If in the course of half an hour the bacteria cease their motions and agglutinate, the presence of B. typhosus is practically established. In rare cases, some strains of B. coli and allied species may respond to the Widal test, but almost invariably in dilutions of 1-50 or less, the high-power dry lens is best for this work.

When samples of water or sewage are inoculated into lactose bile and incubated at 37° C. and then transplanted in varying dilutions into Hesse agar, very characteristic colonies are formed in high dilutions when the typhoid bacillus is present.

Acknowledgments.

The recommendations for bacteriological analysis of water are essentially those advocated by the laboratory section of the American Public Health Association, from whose report (1912) most of the material outlined above has been abstracted.

CARBONATED WATERS—POP.

Natural waters used in the manufacture of carbonated drinks shall come from sources approved as the result of sanitary survey, bacteriological analysis, and chemical analysis for decomposition products and deleterious salts. Bacteriological analysis shall be made from samples collected in the manner prescribed for such in the standard methods for bacteriological water analysis. The samples shall be taken from the water supply in question; also from the bottled product taken at random from the manufacturer or the open market as soon after bottling as possible, but at least within 48 hours, when it should be planted at once.

Technique for the Bottled Samples.

The bottle shall be inverted and shaken 25 times so as to thoroughly mix the contents. If the stopper is of the metal cap type, the upper portion of the neck and the cap shall be well flamed, the cap removed, and the sample for planting taken at once from near the center of the contents. If the stopper is of the push-in type, the neck of the bottle above the stopper shall be filled with a 26 per cent solution of formalin (40 per cent stock) which shall act for at least 10 minutes. The formalin shall then be poured out and the neck rinsed at least 10 times in sterile water. Flame the exposed end of the stopper wire that is not touched by the formalin, push in the stopper without contaminating it, then decant a portion of the carbonated water allowing it to waste. Collect the remainder, or a sufficient portion of it into a sterile flask or test tube, anud plant at once into culture media.

The preparation of the media and the tests to be applied shall be in accordance with the standard methods for water analysis herein described.

Bacillus coli should not be found in 10 c.c. or less of sample, whether of the original natural water or in the carbonated and bottled product. To determine this, plant 10 c.c. of sample in each of 3 lectose-peptone-bile fermentation tubes containing at least 40 c.c. of the medium each. If 2 tubes of the three fail to give a positive test for B. coli the sample shall be considered as not containing B. coli in 10 c.c. or less.

Note by Dr. Geo. W. Steeles, Jr.

I should like to do more work with this class of beverage than already done before accepting or rejecting report. Perhaps this is a satisfactory working basis.

Mr. Wallis, Idaho: I move that this is a question for the Section on Science, and that no final action be taken by this Association. I think that the Constitution intended that all these matters go to this Section. The new Constitution provided for a Scientific Section. I am of the opinion that it goes to that section, under the Constitution.

The Chairman: We will take that matter up and have it referred to a later meeting, and we will accept the report of the Committee on Standard Methods of Bacteriological Analysis.

Mr. Wallis: Does that mean that we adopt what is contained in that report?

The Chairman: No sir; it is just accepted as a report of progress. If there are no objections, it will be accepted.

Mr. Wallis: The point I want to make is this: It recommends certain things, in adopting that report, we adopt that conclusion.

The Chairman: It is not adopted, it is just reported on.

Mr. Charles D. Woods, Maine: This will naturally go before Section B., and if they have anything to report on it, it must come back to this convention.

The Chairman: It has been referred to a later date.

Mr. Abbott: You will understand, Gentlemen, that the main report, which I did not read, was a question largely of technique. It is not so much an in-

(Continued on Page 215.)



Report of the Treasurer



HUBERT F. POTTER—TREASURER 1912-13

THE Chairman then called on Mr. H. F. Potter of Connecticut, Treasurer, to read his report, as Treasurer of the Association for the term from July 9th, 1912, to June 17th, 1913. His report was as follows:

Mobile, Ala., June 17, 1913.

To the Officers and Members of the Association of American Dairy, Food and Drug Officials:

Gentlemen: I beg to submit the following report as treasurer of the Association of the American Dairy, Food and Drug Officials from July 9, 1912, to June 17, 1913:

Receipts.

Balance from former treasurer, James Foust		$153.09
Reports of Proceedings		4.00
Aug. 5, 1912, receipts from W. M. Allen, Secy. the following dues:		
Dues, 1911.		
Connecticut	10.00	
Maryland	10.00	
Indiana	10.00	
Tennessee	10.00	
Florida	10.00	
Washington	10.00	
Kansas	10.00	
Wisconsin	10.00	
Oklahoma	10.00	
Texas	10.00	
Illinois	10.00	
Iowa	10.00	
Rhode Island	10.00	
California	10.00	
New York	10.00	
North Dakota	10.00	
Michigan	10.00	
Dues, 1912.		
Maryland	10.00	
Utah	10.00	
Missouri	10.00	
Alabama	10.00	
Oregon	10.00	
Nevada	10.00	
Idaho	10.00	
Michigan	10.00	
North Dakota	10.00	
Feb. 17, 1913, received from W. M. Allen the following dues:		
Kentucky, 1911	10.00	
Kentucky, 1912	10.00	
Minnesota	10.00	
North Carolina	10.00	
June 11, 1913, received from W. M. Allen the following dues:		
Kansas, 1911	10.00	
Iowa, 1912	10.00	
Maine, 1912	10.00	
Virginia, 1912	10.00	
Tennessee, 1912	10.00	
Louisiana, 1912	10.00	
South Dakota, 1912	10.00	
Connecticut, 1912	10.00	
Florida, 1912	10.00	
June 11, 1913, received from W. M. Allen for sale of copies of the proceedings of the Seattle meeting	20.00	
Total Receipts		$575.09

Expenditures.

Aug. 19, 1912, Johnson & Gerver, reporting proceedings and transcribing same of the 16th Annual Convention of the Association of the American Dairy, Food & Drug Officials, Seattle, Wash., July 9, to 12, 1912		$226.10
Jan. 13, 1913, W. M. Allen, Secy.		
Postage announcement of meetings 1912	$ 2.00	
Postage, program and statement 1912	2.00	
Express on package to Seattle, Wash.	1.15	
Printing 100 Cold Storage Bills for Committee	5.00	
Sending by wire resolution of executive committee to Secretary of Agriculture	2.20	
Postage on 400 circular letters advertising the proceedings	4.00	
Freight on proceedings Chicago to Raleigh	2.50	
Postage to members on copies sold of proceedings	10.00	
		28.85
Jan. 13, 1913, Brandon Printing Co. 1,000 letter heads and envelopes	9.00	
Feb. 24, 1913, American Food Journal, H. B. Meyers, Prest., printing 200 copies of proceedings of the Sixteenth Annual Convention of the Association of American Dairy, Food & Drug Officials	200.00	
		209.00
Total expenditures		$364.95

Recapitulation.

Total receipts	$575.09	
Total expenditures	463.95	
Balance on hand	$111.14	111.14

Respectfully submitted,

H. F. POTTER, Treasurer.

Audited and found correct.

J. R. CHITTICK,
WM. D. SAUNDERS,
GEO. B. TAYLOR,
Auditing Committee.

Mr. Woods, Maine: Ought that be referred to the Auditing Committee? I would suggest that it be referred to the Auditing Committee.

The Chairman: If there are no objections, the report of the Treasurer will be accepted and referred to the Auditing Committee.

The Chairman: I wish to state that there are still some dues for 1912, unpaid. According to the regulations of this Association, it will be necessary, in order to participate in the affairs of the Association, that they should be paid now, and they can be paid any time during this convention.

Mr. Geo. L. Flanders, New York: I would like to know something about my dues. I was under the impression that they had been paid.

Mr. Allen, Secty.: I will inform the member from New York that those dues were received by the Secretary since coming here. It is on our report of the Secretary, but it is not reported by the Treasurer because the funds have not been transferred to the Treasurer. There are a few states not yet paid, would it be the pleasure of the Association to read those, or would it be better just to come up and pay them? I make mention of this probably, because some of you might not know what dues are not paid. You might not know whether the dues are paid, or not.

Mr. Woods: I would suggest that we have a list of men in good standing read, rather than the list of delinquents.

Mr. Abbott, Texas: I would like to suggest that the Secretary knowing the States that have not paid, call upon them to see whether they want to pay it. I say that, for this reason, that I have been under the impression that the dues of Texas have been paid up, and I did not know anything about owing the Association anything until I got here. I never had got a report, or program of the Association in two or three years; so something has gone wrong.

Mr. W. M. Allen: I would state that the dues were paid at the Seattle meeting, but they were for 1911 and not 1912. A good many have dropped behind, and the dues for 1913 are payable now, and the dues for 1912 were payable at the Seattle meeting, but some eighteen states have not paid their 1913 dues.

Mr. Flanders, New York: If our 1912 dues are paid, does that entitle us to vote at this meeting?

Mr. W. M. Allen: I should say it does.

Mr. Flanders: I didn't know how we got behind, the reason I asked the question a few minutes ago, I didn't want to have any mistake or errors on my part.

Mr. W. M. Allen: The Secretary did read New York as "paid."

Dr. Bryan, Illinois: It seems to me that this Association ought not to be embarrassed by lack of funds, and we all ought to pay up our 1913 dues this week. If Illinois is behind for 1913, we will be glad to pay up.

Mr. Holton, Vermont: When does a State become a member of this Association?

The Chairman: Upon the payment to the Association of its dues, and presenting of its proper credentials.

Mr. Holton: Does the State have to pay up from 1907?

Mr. Allen: No sir, it is the understanding that the State joining this year is only responsible for the dues of 1913.

The Chairman: Gentlemen, the next on the program appears the subject "Best Methods for Supervision of Wholesomeness of Materials Used by Bakeries, Restaurants and Eleemosynary Institutions," by Prof. Charles D. Howard, of New Hampshire. It appears that Mr. Howard is not present. To open the discussion on this subject, therefore, Dr. E. F. Ladd, of North Dakota, will address you.



Supervision of Wholesomeness of Materials



By Dr. E. F. Ladd—Food Commissioner of North Dakota

IN considering all questions of this nature, we should bear in mind the differences that exist for the several parts of our country and the character of the Laws and their manner of enforcement. The nature of the laws to be enforced for a particular condition are not and cannot be the same in different states or localities. Neither are the local conditions and requirements the same; and all these things must be noted and carefully considered before one can determine the best methods to be employed for the supervision of the wholesomeness of materials used in these institutions.

A bakery or restaurant in a large city is a far different proposition in law enforcement from the looking after of a bakery or restaurant in a small town where it is far easier to discover and check abuses than would be the case in a large city where damaged material may be bought at any time and under conditions not likely to be detected.

In North Dakota we have two laws that need to be considered. Our Food Law and the Sanitary Inspection Law. The one is as essential as the other for regulating conditions and preventing abuses in bakeries and restaurants. The man with the dirty, unsanitary bake-shop or restaurant is more objectionable in the preparation of his food products than is the man whose shop has a score of 90, or better. In bakeries and restaurants I have found that unsanitary conditions and unwholesome material are usually closely associated. Sometimes after an inspection that is unsatisfactory, a statement sometimes like this is made: "Consider yourself fined $50.00, and now invest that much money in soap, water, help and paint. If you do this you can save a prosecution. Which do you prefer?" And this is the beginning usually of far better things, for by so doing you stimulate pride; and the next inspection records a different condition, as well as an increased business. There are other cases, however, where this method fails and prosecution follows. Watchfulness is necessary to prevent the use of spoiled and unwholesome material and to protect the public against deception and short weight.

Education and publicity are among the first essentials for improvement. Education not only of the proprietor and his help, but education of the general public, and publicity of the findings. This soon leads to discussion and improvement. At bakeries and restaurants it is necessary to take frequent samples and at all times to condemn any unsanitary condition either in the building itself, in the character of the material or the surroundings, and then to ascertain from whom the supplies, both those in general use and in stock, are purchased from. In small cities and towns where the material is purchased through the local market, there is less likelihood of adulteration or inferior products being used than where products are shipped in from the large centers. Where it can be done, it is desirable for an inspector to take occasional meals at the restaurants in order to know what is being served. At times it may be necessary to do so detectively but usually little of work is required with us. But where sanitary inspections are made and the score therefor furnished to the proprietor in a form to be used, that is, for posting up in his place of business, we find the most effective means of improvement of conditions, which means also improvement in the material used. Cheap lawyers out for a fee and ward politicians, who think they control 50 votes in the first ward and who prey upon the ignorant, are often a worse menace than the bakeshop or restaurant in its most undesirable form, and these must be met and their methods exposed to the general public, but it is not always best to show too fully the data which you have gathered for future use should it be necessary, but one must needs act promptly in order to frustrate their assumed influence.

In making inspections for the first time of restaurants in one of our larger cities in North Dakota, the score ranged from less than 30 to 98. Many improvements, and those places which scored low at first now have a fair score, and several are out of business. Publicity leads to discussion, and discussion leads either to improvement or to a changing of patronage, resulting in a failure to succeed. This is, therefore, the greatest stimulus to improvement.

As far as possible the towns are induced to have local ordinances and inspectors to assist in looking after the sanitary conditions of their city, and where there is sufficient interest the local Board of Health or other inspecting officers are deputized to furnish information to this Department, thus enabling them to do more effective work than could be done under local appointments. Such an appointment and arrangement has made Grand Forks, through the activity of the Civic League and Women's Club and a local woman inspector, one of the cleanest and best cities in the Northwest. Already in this city an order has been issued prohibiting the employment, in many of the public places where food products are served or handled, of persons afflicted with contagious or infectious diseases, as enmuerated in the Sanitary Inspection Law.

We have found that one cannot fix hard and fast rules for bakeries and restaurants so as to place them all in the same class, for the restaurant that caters to the hard-working laborers, say at ditch-digging, etc., can hardly be expected to be in the same class with the restaurant which supplies the professional and business man. It does not follow, however, that the restaurant of the laboring man should be permitted to use harmful ingredients, but a cheaper grade of material would be most likely to be employed; while, at times there might be a tendency to use more of the damaged material and to substitute imitation extracts and flavors for the genuine article.

If one prefers a mixture of coffee and chicory, there can be no objection, but it should not be claimed that the product is coffee. If one is willing to use extract of tonka in place of vanilla in a food product, there is no reason for interfering with the use of the same. it seems to me; but, if the product is sold as vanilla ice cream, the question is quite different, as would be the case of the substitution in any restaurant or boarding-house of oleomargarine for butter without so informing the public. Frequent inspections, therefore, become necessary in order to prevent the use of articles unfit for food, but without interfering with the grade of the product that may prove satisfactory to the patrons of the bakery or restaurant.

An attempt to control the character of the materials used in eleemosynary institutions, however, is quite a different problem and one which the writer has had very little to do with farther than to see that the products in the towns where these institutions are located, are of the same character as elsewhere; and a large share of the material with us is purchased from local dealers. Some of the material is purchased by contract and perhaps not always of as high grade as should be had by those who through unfortunate circumstances, must spend their days in these public institutions. At times material has been submitted by the officers in charge to ascertain whether or not the product was as represented in the purchase. We have endeavored to assist these institutions as far as possible where information has been asked for; and with the introduction of the Board of Control system there is a greater opportunity to do work by enlisting the support of the Board of Control to aid them in checking up the purchase of material through their contracts and thus see that inferior products, other than specified, are not substituted by the contractor.

The Chairman: The next order of business according to the program will be a paper on the subject of "Cold Storage," by Dr. William P. Cutler, of Missouri.

The appointment of Special Committees and the Report of the Executive Committee on Program will be found on page 222.



Cold Storage



By Dr. William P. Cutler—
Dairy Commissioner of Missouri

THE feature of cold storage which particularly interests a body of this kind is necessarily its effect upon the wholesomeness of the food supply which comes under inspection. That cold storage is an economical necessity, I think will be conceded by all present. When the writer began the work of inspection of foods nine years ago it was with some considerable prejudice against cold storage methods. This was born of ignorance and from the fact that the methods were at that time more or less imperfect. This opinion has undergone a radical change and he believes that refrigeration as found in modern methods is an economical necessity. That is to say, because of refrigeration, wholesome foods are available today which have hitherto gone to waste. Waste is always wicked and is never to be encouraged.

Another important view to be considered is that people are enabled to enjoy summer conditions in the winter time so far as food is concerned. It is a well-known fact in the production of milk, for example, in the winter time if summer conditions can be simulated in the matter of feeds, a larger flow of milk is the result. This is especially so in the feeding of silage, which provides for a succulent ration like unto June grass in the winter time. It is true that the silage is not the result of refrigeration, but it is the result of preservation, and this is what cold storage is for, no more, no less.

Nature provides in great abundance in the spring of the year young chickens and eggs. These are not only more appetizing when had in their young and fresh state, but they are more easily digested, and being in abundance are cheaper. Not to preserve this food in its abundance and carry it over to the cold months is to ignore Nature and her teachings. A town having an abundance of water in the spring of the year who would fail to build a reservoir to store up the superabundance for use during a drought would fail of a water supply when it was most needed. To fail to take care of waste food is equally foolish. It is true that this body is not concerned particularly in the economic view of this great question, but in discussing this proposition we have necessarily to look into the reasons for the cold storage of food, which food comes to us for our inspection.

I believe it is the duty of every inspector of foods or one having that matter in charge, to be fair not only to the consumer—who is the first charge to be sure—but also to the man who manufactures or who is a purveyor of food stuffs. In other words, because a man is in the cold storage business it is not prima facie evidence that he is a rogue or a would-be spoiler of the people, or that he is one who would deliberately sell to a confiding public food which is unwholesome. When I was Food Commissioner I did not believe that I had the right to assume that any man would deliberately sell food which was unwholesome for profit. It is true that there were some men now and then who perhaps were guilty of this practice, but according to my observations of nine years of inspection work, these latter were few and far between.

Nature requires that our food shall be not only wholesome, but as varied as possible. It is undoubtedly true that without cold storage we could not have a varied food supply in the cold months. The United States Government has provided a department whose business it is to give careful study to the wholesomeness of cold storage products. This work has been carried on for several years and the results are recorded in several bulletins issued by the Department of Agriculture. According to Dr. Pennington, head of the department above referred to, it is not necessarily the length of time that food stuffs remain in cold storage but their condition when placed ii cold storage as well, which determines their wholesomeness. She says:

"The ignorance of the public concerning food production, handling and distribution, makes it cling to the one term that is firmly fixed as a standard of condition, namely, 'fresh.' Because so little is known of the history of the foods that we all eat, and of the ingenuity of the modern food industries in providing both quantity and variety for the people, freshness is looked upon as a function of time rather than of good handling. Yet a little reflection on the part of anyone will serve to show that milk uncooled and in dirty vessels is stale to the point of unfitness for food in a very few hours; while the same milk, well handled, is considered fresh and desirable for several days. The egg just laid and placed in the cool closet is accepted as fresh by even the most exacting housewife for a week; but the same egg left in the summer sun for a few hours is so deteriorated that it is justly designated 'old' or stale. With such homely illustration all about us it should not be impossible for the educated mind to realize that there may be methods of conserving eggs, for example, so much better than the cool closet of the housewife that freshness may be maintained for months instead of days."

My personal experience in Missouri as Food Commissioner leads me to the inevitable conclusion that the refrigeration companies are only too anxious to comply with the law when the same is presented to them. For example, at one point in Missouri I had some difficulty on account of some people insisting upon buying 'spots' at a low price, breaking the same into cans and placing these in cold storage for future sales to bakers. An examination of this product showed it to be unfit for food. An immense amount of detail was necessary to hunt out the people who were buying these eggs and breaking them, much of it being done in cellars and other out of the way places. Putting two or three inspectors on the work (and we were limited as to numbers), we found a few and prosecuted them, seizing their eggs, but this did not break up the custom. I finally went to the cold storage people in that city and insisted that they receive no more broken eggs for cold storage without permission from the department. (I should have said that it was necessary that these eggs be frozen before they could be sold.) The refrigerating company upon my preferring this request immediately acquiesced, and when anyone presented cans of broken eggs for cold storage declined to receive them without permission from my department. We succeeded for that season in practically stopping the custom of breaking questionable eggs.

We have had presented to this body a law which has been introduced in some of the legislatures of the states, regulating the refrigeration of certain foods, arbitrarily placing upon each consignment or case the date when same was introduced for cold storage. I was not enthusiastic for this bill, for one reason, because it is not sufficiently clear. For example, it said in a few instances that the place should be kept at all times in a sanitary condition. Lawyers hold that this is not sufficiently definite —that what constitutes a sanitary condition might depend upon the judgment of one individual, which would cause a difference of opinion on the part of another. Therefore, this being so indefinite would not be a good law. I was not enthusiastic over this law for another reason and this was because the date of the consignment was not a fair test of the wholesomeness of the product. According to Dr. Pennington, as above quoted, an egg is wholesome or not, depending upon its condition when placed in cold storage. If this is true, a hardship would be worked not only upon the consumer but upon the purveyor, as a ten months' date stamp on good food would be misleading when the consumer might naturally be prejudiced because of the length of time when this had been in cold storage. If placed there when fresh and kept at proper temperature in dry air, authoritative evidence is forthcoming to show that this food is absolutely wholesome, not to say very palatable, and this includes poultry as well as eggs. Another important authority says:

"No one would hesitate to eat bread in the winter and spring because they knew the wheat from which it is made was grown and stored away six months or a year ago. No one would balk at a luscious apple harvested in September and placed on the table in the following May or June. Every one knows that cheese of the usual type is not fit to eat until it has been 'ripened' by weeks of curing—a process that is simply delayed by longer holding in arti-

ficially corrected temperatures. Butter carried for months in a frozen condition at temperatures about zero changes in character and flavor to no appreciable degree and is practically as good to eat as the day it was made. Eggs deteriorate in quality more or less according to the conditions surrounding them after laying. In hot, damp weather they may become rotten in a week or two; in cold, dry air they keep sweet and fresh flavored for months. Doubtless a perfectly fresh egg, kept cool and dry, is better when under a week old than one so kept for six to ten months; yet cold stored eggs put away in the best season and then of fine quality are far better in every respect up to six months proper cold storage than a large proportion of the eggs marketed as promptly as is usual from the western farms to the city consumer. And from October to January—and frequently to February inclusive—properly packed and carried cold storage eggs furnish an excellent and wholesome food when new eggs are so scarce as to be beyond the reach of nine consumers out of ten. Consumers are very likely to class all poor eggs as cold storage, whereas at many seasons they are far more likely to have become poor because they were kept in less favorable surroundings. There is very rarely a time, even in the periods when fresh eggs are naturally very scarce, when good, sound, sweet flavored refrigerator eggs cannot be bought by New York consumers at 25 to 35 cents a dozen retail, according to the variable conditions of supply; and up to the time when new eggs become plentiful — usually during February—the stored goods of the better grades are of a quality which should prove an entirely satisfactory substitute for fresh stock that may cost 50 to 60 per cent more.

"Frozen poultry, if frozen when fresh and in perfect condition and properly carried, suffers no appreciable deterioration for months and up to the usual limit of commercial holding cannot be distinguished from fresh killed stock by most people. Furthermore, at some seasons poultry of certain kinds cannot be had at all except from the refrigerators, owing to the nature of the birds, their seasonable hatching period and seasonable growth."

The Chairman then asked if Mr. Elton Fulmer, Washington, was present, who, according to program, was to lead the discussion on the subject of "Cold Storage." Mr. Fulmer, being absent, the Chairman called for Mr. Maurice Groshon, Wyoming, who, according to program, was to take part in the discussion on this subject. Mr. Groshon, however, also was absent.

Mr. Abbott, of Texas: I think this question is too important to be passed over hastily—at least, it is to us, who live in the South. I do not mean to enter into a discussion myself. I simply want to ask the Doctor a question or two. Doctor, you brought up the question there of the method of asking your cold storage houses not to accept anything for cold storage until they had a certificate from your department. I am anxious to know how you can manage to make an inspection of all this stuff going into cold storage at so many places, how it can be possible for you to have a knowledge of the condition of the stuff going into cold storage.

Dr. Cutler: I referred only to the broken eggs offered for cold storage. I could not hope to expect the refrigerating company to refer everything to us they receive. This was the particular instance of the matter of breaking spot eggs into fifty-pound cans, and offering them for cold storage. They buy the spots for thirty cents a case, and take them into a dark cellar, and break them up and put them in fifty-pound cans, because they are not fit for use, but if they can put them in a solid mass, they sell it to the bakers for thirteen cents a pound. The bakers are glad to get it, because they put it right in their cakes, and put them right in the oven. Now I simply said to the refrigerating company in St. Louis, where the trouble was most acute, and where they were doing this most extensively. I said: You can help us materially, if you will be kind enough to refer to us any consignment of broken eggs which were offered him, and he said, he would.



WILLIAM P. CUTLER, M. D.,
Dairy Commissioner of Missouri.

Mr. Barney, of Iowa: I would like to ask the doctor how he would amend that portion of the law, that he takes exception to.

Dr. Cutler: In the first place, you remember the law said that "the plant will be kept at all times in a sanitary condition." That is too indefinite, who knows what a "sanitary condition" is? Who is an expert to say what a sanitary condition is? And to that extent, I object to that law, as being impossible of enforcement.

Mr. Barney: I cannot agree with you in that. I think we have been pretty successful in establishing a better condition.

Dr. Cutler: The principal point I wanted to make was that it was unfair to the customer to put a stamp on a fresh egg and put the same stamp on a cold storage egg, and have both of them come out, and be offered for sale under the same conditions. In other words, if it is not a good egg when it goes in, it ought not to be classed as a good egg.

Mr. Abbott: I would like to ask the Doctor another question about the egg question. I do not feel that I owe you an apology for keeping on this point. We lose about a million dollars on this question in Texas every year. An egg that is put in cold storage in the early spring months—it is all right when it goes in, but the longer that it stays in the poorer flavor it gets in the eating. This bad flavor increases with age. I don't know whether it is possible to get rid of this flavor. If there is, I would like to know how to do it. The poorer flavor a food has, the less wholesome compared with a product that has a sweet, good flavor.

Dr. Bryan of Illinois: I would like to state that I have eaten cold storage eggs within two weeks after they were taken out of cold storage, which were just as fresh in taste and smell as the day they were put in, and could not be distinguished from freshly laid eggs. In my opinion, the large amount of the flavor of the eggs taken out of cold storage is due to the fact that when the egg is taken out of cold storage it is very cold, and the moisture condenses on the surface, and the moisture develops from that time on. I would like to hear if any experiments have been carried on where the perspiration of the egg from the time it is taken out of the cold storage has been prevented.

Mr. Abbott: On that point, I suppose it is well known that the cold storage people, in taking their eggs out for sale,

take them out at night and spread them out on a table under fans, and, as the moisture condenses, the moisture evaporates. That is done at night, and then the next morning they are sent out to the grocers. There is a characteristic cold storage flavor in our country that is very objectionable on the part of the housewife. If anybody knows why that is so, we would be very anxious to know why it is.

Dr. Cutler: Do you know whether the eggs are put in absolutely fresh? Is it true that if an egg is placed in absolutely fresh, with no possibilities of becoming stale, is it not held in that condition six months? An egg which is stale before it is put in is necessarily stale when it comes out.

Mr. Abbott: I grant you that last statement, but I know that eggs have been put in fresh in the month of February, but when they came out in the summer they have this objectionable flavor. I have had various reasons assigned for this condition, and it is a financial problem with us as well as a public health question. I wanted to know if anybody knows why this condition obtains in these eggs.

Dr. Cutler: I would like to ask if they still had that taste when they came out?

Mr. Abbott: Yes, sir.

Dr. Cutler: Do you know whether the storage rooms were kept in a proper temperature?

Mr. Abbott: We had the register there, and we have some splendid cold storage plants. The temperature, so far as I know, was correct, but I took it that our cold storage people, who have millions of dollars invested, know at what temperature to keep them. One man will say it is due to the cardboard; another will say it is due to the damp room, and another will say something else, and so on; but so far as I have ever been able to learn from personal contact, I have never known anybody who knew how to do it. Someone told me that they don't have it in New York, but they do; and the same in St. Louis, and I have never had anybody agree as to how this bad flavor develops in the cold storage eggs. How to prevent it I don't know.

Dr. Cutler: You don't know what moisture prevails in the rooms in which these eggs are stored?

Mr. Abbott: No, sir.

Dr. Cutler: Do they use lime in these rooms?

Mr. Abbott: Yes, sir. I suppose the cleanliness of the eggs will have some bearing on it. I do know that they have this flavor.

Dr. Cutler: Are these stored in separate rooms?

Mr. Abbott: In our state, no; but in many instances, yes, sir. We have many storerooms used exclusively for eggs.

Dr. Cutler: And they have the same flavor?

Mr. Abbott: Yes, sir.

Mr. Holton of Vermont: He said nothing of drawn or undrawn poultry. Do you consider that it makes any dif ference in its keeping qualities?

Dr. Cutler: Personally, I could not say; but quoting Dr. Pennington: She says that the undrawn poultry is the best for placing in cold storage. I heard her state to the National Poultry Association in St. Louis that she had samples showing a condition that the chicken undrawn would keep better than the drawn. At the last meeting of the state convention this was under discussion, and the same conclusion was announced then.

Mr. H. F. Potter, Connecticut: This egg discussion is very interesting to me. We have recently passed a law in Connecticut requiring all cold storage eggs held in cold storage over fifteen days to be labeled by the merchant who sells them. It is very puzzling to me to know how I am going to discover these cold storage eggs from eggs kept in the farmers' pantry for several weeks. I presume that Dr. Abbott will detect them.

Mr. Abbott: I want to say to any doctor or member here that I can go to Chicago, New York or Texas, and I will tell you whether or not by boiling and eating it, whether it is a cold storage egg. I will post a thousand dollars right now that I can tell a cold storage egg the minute I taste it. This flavor develops from the time you put it in storage, and it is a proposition that has a tremendous commercial background in this country. I know that the housewives in Texas do not want any cold storage eggs. They are not going to eat them. Every man's wife in Texas is prejudiced against the cold storage eggs. I am for cold storage strongly, but I want to perfect the proposition. If not, I think somebody ought to make a serious investigation along these lines.

Mr. Saunders: I have had some experience in cold storage of eggs. I found that there were certain temperatures that had to be kept, to cover up your walls; and it occurred to me that possibly the difficulty with your eggs in Texas is that the room is not kept in proper condition, and the temperatures are not kept sufficiently uniform.

Mr. Abbott: I want to say that I have investigated our cold storage plants, and those in St. Louis very thoroughly, and I know it is a fact that we have some as modern cold storage plants as anywhere in the world, but so far as the plants are concerned—their makeup and the cleanliness of the plant —we have just as good a condition as maintains in other places, but in reference to the temperature I am not informed. I do not presume to know what the proper temperature of the egg is, but I know that our cold storage people travel everywhere and study it, and I presume that our people are doing exactly what they have learned and know to be right.

Mr. Saunders: I believe that is where your trouble is. I believe that if you maintain a proper temperature and proper condition in the room that you will get better cold storage results with eggs.

Mr. Woods of Maine: I am very much interested in this discussion. I would suggest to Mr. Abbott that they go to the cold storage people in their state and get them to give us funds to investigate this condition, and then report to us. I think, personally, there is no one here that knows anything about this subject, and it is a very important subject. I am inclined to believe, with the experiences otherwise over the country, that if a strictly fresh egg is used for cold storage, and a proper temperature maintained, that Mr. Abbott nor no one else can tell whether or not it is a cold storage egg. Couldn't his people, who are vitally interested in this very important question, help us to investigate this problem of cold storage within their state and come back and give us facts? I am very much interested in any question where it is a fact that there is a loss of a million dollars, as Mr. Abbott says, in cold storage eggs.

Dr. Caspari: I would make a little suggestion to Mr. Abbott and I will agree to have the same thing done in Baltimore. It might enable us to ascertain just where the trouble in this matter lies. I would suggest that Mr. Abbott get a case of eggs, and put on them a coating of sodium and put them in cold storage along with another case of eggs not coated with it. Then keep them in cold storage the same length of time, and when you take them out compare the results of this process.

Mr. Abbott: I was probably misunderstood. I did not mean to say that we lost a million dollars in cold storage eggs. I said that we had lost it on rotten eggs, bad eggs. The Bureau of Animal Industry has estimated that the United States loses about forty-five millions of dollars yearly on rotten eggs. I find the trouble in this discussion is that you people do not believe what I say. You don't believe that there is any such thing as a cold storage flavor, and, of course, if you don't believe that it is useless for me to seek information; but, whether you believe it or not, I know that it is so. If you don't believe that there is a bad flavor, and there is an objection to cold storage eggs, why do you want them labeled as cold storage eggs? Why don't they bring the same price as the yard eggs, that the fresh eggs bring? I will repeat this: I will put up a thousand dollars against a thousand dollars of any man in this convention, to be donated to any charitable institution you may name, that if you go into any place in Texas and get an egg. I will tell you whether or not that egg is a cold storage egg; that is if you take the cold storage egg out of cold storage after six months—and I can tell it. It is a serious proposition. What difference does it make whether we have a law regulating the length of time that it stays in there? Why not let it stay there fifteen years in cold storage, or any length of time, if, by using the proper methods of cold storage, the egg can be preserved and be as good as a fresh egg?

Dr. Caspari: I do believe that the statement of Dr. Abbott is correct and I will state here that I mean to make the test in Baltimore on these two cases of eggs, which I have just mentioned.

Dr. Bryan of Illinois: I disagree with our friend from Texas and our

friend from Maine, Mr. Woods. The United States Deepartment of Agriculture has done considerable work with reference to storage eggs, and they can tell any egg that is over three months old, in cold storage, and consequently the statement made by Mr. Woods is erroneous. The work which I refer to, with reference to telling the age of eggs is only a sample portion of the work that has been done. We have with us today Dr. Bigelow, of the Department of Agriculture, who may not feel at liberty to discuss things inasmuch as we know that there has been a great deal of work that has been done. It appears that it should be the duty of our Committee on Co-operation to confer with the Department of Agriculture and ask that they publish the results of this work as soon as possible. Mr. Chairman, I move that this matter of co-operation in reference to securing the publication of the details of this investigation and the conclusions therefrom be referred to our Committee on Co-operation for their action.

This motion was duly seconded.

The Chairman: Gentlemen, you have all heard the motion of Dr. Bryan to refer the matter of securing publication of this work by the Department of Agriculture to the Committee on Co-operation. Those in favor of this motion will signify by saying "Aye" and those opposed "Nay."

By a vote of the convention the motion was passed and the chairman announced that the matter would be referred to the Committee on Co-operation.

Mr. Flanders of New York: I have noticed in the discussion here that you refer to temperature. I have been wondering whether there have been any experiments to show what, if any, degree of moisture should accompany that temperature. It seems to me that that experiment must have been performed by someone.

Mr. Woods: That experiment has been tried, from the vitality of the egg. But I don't know whether on any exact temperature. It has been worked out very clearly.

Mr. Flanders: I have noticed that in drawing of bills about the length of time. I have wondered whether each commodity might not have a nature of its own, such as would require a different temperature and moisture. This question whether there should be a time limit put upon commodities remaining in cold storage, and the time on some of them, and if not on all, what ones should be exempted.

Dr. Cutler: Economic conditions practically regulate that. If a man does not sell his eggs in six months he is just out the money. They are rarely in cold storage over six months.

Mr. Flanders: Suppose I had butter or cheese, that an economic condition demanded that I should keep it.

Dr. Bryan: I move that this question of time limits be also referred to our Committee on Co-operation. My motion is to refer the whole cold storage problem, with reference to time limits, to our Committee on Co-operation to secure from the Department of Agriculture as promptly as possible the results of their labors.

Dr. Bryan's motion was duly seconded.

Mr. Allen of Kentucky: If I remember correctly we have a Committee on Cold Storage, but at Seattle the committee made a report on cold storage which was only received and referred back to that committee, and it seems to me that that committee would be the proper one to refer this to. There is a good deal already published in the Cold Storage literature. I think that it has been settled that Dr. Pennington is doing some excellent work. I would suggest that a cold storage committee, with Dr. Pennington as a member of it, to report back to the association at such a time that it can do its work on that question, would be the proper way to handle it and in the discussion which will come up as to the general purposes of the association I think probably tonight I am going to offer as one of my suggestions that this association is not doing its work with a definite enough position. I have been coming to the association for twelve or thirteen years, and every year I hear a good deal of inquiry and discussion, but nothing is done. I sometimes wonder whether the association is for hearing ourselves talk, and going back home, and it seems to me that if we had a committee on cold storage, and a committee on labeling, and on all these subjects, so selected that it would be competent, we would get somewhere. We would introduce system, and have a definite program with respect to these matters, and if the gentleman from Illinois will permit me, I would like to amend his motion—that this be referred to the Committee on Cold Storage that has been working on this question.

Dr. Bryan: I could scarcely permit that amendment. This committee on cold storage was not a committee on cold storage, but a committee to report on a cold storage bill. This should be referred to the Committee on Co-operation. What I seek is a little more rapid action with reference to getting the information which the United States Department of Agriculture is compiling along this line, and that work should be handled by the Committee on Co-operation. If the association also wishes to appoint a committee to investigate along particular lines in reference to matters pertaining to cold storage, separate and apart from work that has been done by the United States Department of Agriculture, then that would be all right. But so far as this motion of mine is made, I think it should be left entirely in the hands of the Committee on Co-operation.

Mr. Abbott: I have not been talking just to hear myself talk. I have been about six years in the pure food work in Texas. I have never had a place on the program to talk, and I feel free to talk now as much as I want, particularly on the question of the certain deterioration of a certain food product. I want to say to this association that we have given a great deal of time in this country towards teaching people to produce more food, but we have not given sufficient time to the teaching to the people of the preservation of food. I take it that every food official here should bear in mind that the first vital and important thing for him to learn is the proper prevention of the existence of unclean and unsound products. Whether we will or not, we have to do that. We must be able to tell these people how to prevent unclean food. How can we prevent such a condition as obtains here? I am thoroughly anxious to get information on this point. I know what the literature is on this point, but I know that there is a bad flavor, and it is not given a place of importance, and in the future I think that this organization should take some action with this in view.

The Chairman: Gentlemen, you have heard Dr. Bryan's motion that this matter be referred to the Committee on Co-operation. Those in favor of this will signify by saying "aye" and those opposed "nay." The "ayes" have it and it is so ordered that this matter be referred to the Committee on Co-operation.

Mr. Holton: I hope that this committee will investigate the keeping of eggs in China. I am told that they keep them there for fifty years.

The Chairman: I wish to announce that Section B will meet in one end of the roof garden. The hotel management will place chairs and tables up there, and Section A will meet right here in this auditorium. Tomorrow morning's session will also be held in the roof garden.

The Secretary: Gentlemen, the meeting tonight will be held in this room at eight o'clock promptly.

I wish to announce that I am not sure whether all the members have filled out the cards, giving their names and addresses, and I wish they would do so, so that we will have a permanent record for our files.

(Adjournment.)

(Continued from page 209.)

terpretation of results of bacteriological work. It is an effort to get at a uniform method of technique, so that one man will understand how to interpret another man's word, and every man will use his judgment as to result, and there is not very much of that included in this large report, which I did not read. Personally, I have a very strong view contrary to some generally held in the interpretation of gas forming organisms in a bile media as a basis of contamination of water or milk.

The Chairman: Gentlemen, are there any further reports?

Dr. Charles Caspari, Jr., of Maryland: Gentlemen, you will all remember that at Seattle, a committee was appointed to prepare a list of tolerance limits. One of the members of the Committee is no longer engaged in work of this kind, and the other member is not present. I stated last year that it would be impossible to make a final report on this matter this year, owing to the fact that the pharmacopoeia standards had not been completed, but it is proper that I should report progress at this meeting, and having no chance to consult with the other member of this Committee, I have to make this report.

The Chairman: Gentlemen, you have heard the report of the Committee on Tolerance limits—unless there is objection, the report will be accepted. There being no objection, the report is accepted.



The Second Day—Tuesday, June 17



EVENING SESSION

ADDRESS BY MR. R. E. ROSE
ADDRESS BY MRS. ROBINSON
ADDRESS BY MR. R. M. ALLEN

Should Federal and State Laws Recognize and Allow Substandardization of Drugs?

BY R. E. ROSE, STATE CHEMIST OF FLORIDA

THE CHAIRMAN: Gentlemen, the convention will now come to order. According to the program the first order of business was to be a paper on the subject, "Should Federal and State Laws Recognize and Allow Substandardization of Drugs," by Dr. L. F. Kebler, Bureau of Chemistry, Department of Agriculture, Washington, D. C. Dr. Kebler is not present at the convention and we will therefore, under the head of "Drugs," call upon Mr. R. E. Rose, of Florida, to open the discussion on this subject.

Mr. Rose of Florida: Mr. Chairman and Members of the Convention: It is a little bit confusing to discuss a subject that has not yet been opened. I regret that Dr. Kebler is not here with his paper, which I imagine would be of considerable interest and scientific value. I was in hopes that Dr. Caspari would dwell on this subject also. The discussion that I have to make, not having heard the principal, will probably fall flat as a discussion. It simply represents my individual opinion, drawn from experience of about twelve years in the handling of the drug question.

The Address.

MR. President and Gentlemen:—The subject under discussion is doubtless one that has caused each of you at times to wonder how so incongruous a paragraph in a law could have been solemnly enacted by a body of such eminent legislators as was that Congress which framed and passed the "Pure Food and Drugs Act of June 30, 1906," a sentence of four lines which fixes the standards of the entire list of drugs in the U. S. Pharmacopoeia and National Formulary—the result of careful study and practical experience of the most eminent physicians and pharmacists, as the legal standards to be recognized by the pharmacists and physicians of the nation; and in the next sentence of six lines, absolutely nullifies this standard and allows dilute extracts and dilute remedies to masquerade as U. S. P. preparations.

U. S. P. Drugs and medicines have always been known to the public, both the professional man, and the layman, as requiring the greatest skill and the purest materials in their preparation, and of such uniform composition as to have become a proverb, any drug, according to the U. S. P. being considered to be beyond question, of a certain known composition, with unquestionable therapeutic value, at all times to be depended upon as of a known composition and to be dispensed with confidence by the physician.

Possibly, though not probably, some of you have not considered this peculiar structure of this most important part of our drug law. I will therefore quote it. It is the first definition of "adulterated:"

"In Case of Drugs:

First: If, when a drug is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality, or purity, as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation:

Provided, That no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity, be plainly stated upon the bottle, box, or other container thereof, *although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary.*"

Could a more glaring inconsistence be imagined than to fix a definite standard, one recognized for generations, the result of long experience and universally recognized; and in the next breath provide that this "standard" may be violated by anyone by printing on the label of the drug, extract, compound, or preparation, the statement that it is not "standard" but is adulterated and of less strength than the "standard," though sold under the name recognized by the U. S. Pharmacopoeia and National Formulary.

It is impossible for us to reconcile the two sentences, one fixing the "standard" and the other destroying it.

Did the law require that the word "dilute" should be printed in letters of the same size and type as the name of the drug, as "DILUTE LAUDANUM," "DILUTE PARAGORIC," or "DILUTE SPIRITS OF NITRE," together with the exact statement of the active proportion of the active principal in the dilute article, in the same type, some protection to the user might be offered, though I seriously question the propriety of allowing any "standard" drug or medicine of a fixed and well known name to be diluted, and still sold under the standard name. I quote here a few instances of the vast variations found in an analysis of well known "standard" remedies.

Laudanum, the standard of which demands 45.6 grains of opium per fluid ounce, varies from 9 grains (one fifth the "standard") to full strength, the so-called "½ or ¼ strength" being frequently found, though sold as "Laudanum."

Paragoric, the standard requiring 1.82 grains of opium per fluid ounce, frequently having but ¾ grains, just 26 per cent of the active principal, and is sold as "standard."

Spirits of Camphor, requires 10 grains per 100 cc, frequently has less than 5 grains.

Spirits of Nitrous Ether (*Sweet Spirits of Nitre*), a common domestic remedy demands 4 per cent Ethyl Nitrate and 90 per cent alcohol to be standard. Often there is but 50 per cent alcohol and less than 0.03 per cent of "Ethyl Nitrate," simply dilute alcohol, still sold as standard.

The list can be continued indefinitely covering hundreds of U. S. P. drugs and medicines. It is unnecessary to dwell further on the subject, as it can be readily perceived that there is no standard fixed for drugs named in the U. S. P. and National Formulary, under this Proviso.

Tincture of Iodine shows a dilution frequently of more than one half of the standard requirements of iodine.

These are but a few of many instances of dilution of common drugs "standard" and are quoted simply to show the result of the "sub-standards."

Under this "standard" no dependence can be placed on the Pharmacopoeia, the universal text book—frequently revised by eminent pharmacologists acting under authority—on which all pharma-

cists and physicians depend in writing and dispensing prescriptions, and on which we daily depend in ordinary domestic practice.

I can conceive of no amendment to the "Pure Food and Drugs Act" more necessary for the protection of the public health than the removal of the "proviso" in the definition of the standard drugs named in the U. S. P. and National Formulary.

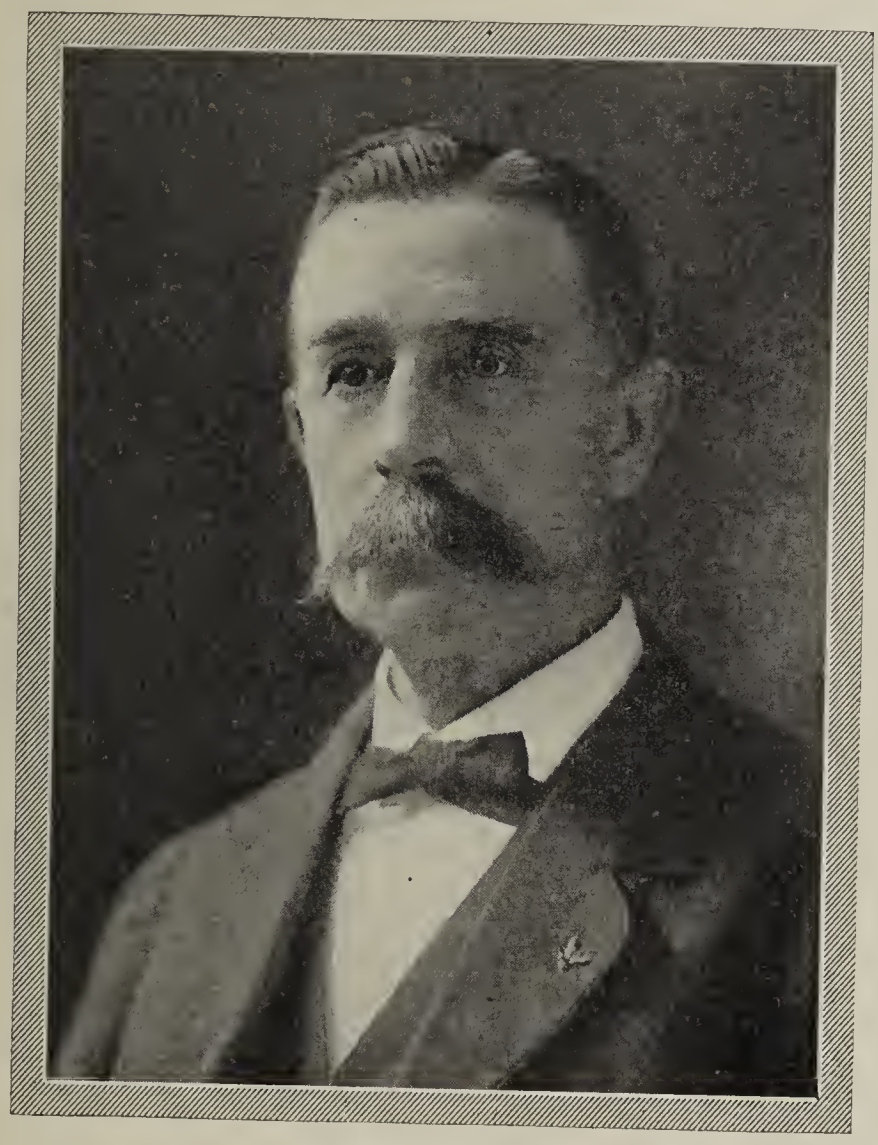
Dr. Caspari: At the meeting in Seattle last year this matter came up for discussion and was mentioned, and I took occasion then to point out that the substandard clause of the National Law and several State laws seemed to me to be in serious defect, especially in regard to these remedies which Dr. Rose has just mentioned. I am glad to state that opium preparations are exempt in Maryland. It would seem to me proper that this association take some action looking toward an amendment in the National law, eliminating this serious defect. There is no denying the fact that in the case of drugs, and particularly where the United States Pharmacopoeia and the National Formulary has fixed standards, that there should be no deviation from such standards, more especially since the statement appears on the label that it is according to the Pharmacopoeia standard. The way has been open so that preparations are frequently marketed of a strength lower than that demanded by the Pharmacopoeia. What possible excuse can there be coming from a manufacturer or dealer as to the deficiency of strength. This book is carefully revised, as most of you know, every ten years, and the work of revision sometimes covers two or three years, and then after all this work has been carefully compiled and made a legal standard, the law allows it to be violated, without any reference at all to the standard set. It is assumed that pharmacists will dispense strictly according to prescriptions. I am willing to go so far as to say that that is carried out. But that does not apply to sales that do not come from physician's prescriptions. If some action could be taken calling the attention of the Congress of the United States to this unfortunate clause in there, perhaps it could be eliminated by an amendment. I don't know of anything better than a strict adherence to the Pharmacopoeia by the pharmacists and the physicians associated with them. The physician has the right to expect that when he prescribes and orders a prescription that it shall be of that strength that the Pharmacopoeia regulates. It is a sad state of affairs, and the sooner we make an effort to remedy it the better it will be for the country at large.

Mr. McKinley: I would like to know whether the gentleman can make any distinction between the so-called dope drugs—whether those should be permitted to be sold of a dilute character.

Dr. Caspari: I should say that anything that is recognized in the National Formulary should be made of that strength, and if it is not of that strength it should be stated on the label. As long as the official title is used, then strict adherence should be had to the Pharmacopoeia. Of course, there are a large class of preparations that it is very difficult to do this with; for instance, tincture of iodine; and it will be a long time before we are able to, but the time will gradually come, and the matter has been taken up in some other countries.

Mr. Rose: Is not the U. S. Pharmacopoeia almost universally employed by the U. S. P. and is generally used the world over?

Dr. Caspari: I should not say that, but the difference is not very great. I might say that in the case of patent medicines or remedies, an amendment should be urged by the adoption of such a clause for the universal U. S. pharmacopoeia. The variance between these different pharmacopoeias is not of sufficient moment.



R. E. ROSE,
State Chemist of Florida.

Mr. McKinley: In Illinois, we had this question up in connection with the introduction of a bill in the Illinois legislature to enact a drug law. A drug law there is part of the pharmacy law. A bill was introduced to provide a comprehensive drug law, and our department was called upon for help and information. We made a compilation of the different statutes in the different states in this regard. We found that thirty states had a provision similar to the Federal law. Thirty states were similar to the Federal law, and thirteen states did not provide for any substandards, but they did provide that every drug sold under the pharmacopoeia must conform with that standard, and after considerable study of it we recommended that all drugs must conform with the standard in spite of the authority of the thirty states.

Mr. Brown of Tennessee: I got in a little late, and I would like to ask whether attention has been called to one trouble, viz: under the pharmacy laws of the states certain drugs are allowed to be sold by country stores, which do not have regular pharmacists. In Tennessee there is a list of drugs of that character that can be sold in that way. Those drugs have been giving us a whole lot of trouble, and so we made a list of some eight or ten most commonly sold in the country stores which should not be substandard. No attention in Tennessee has been given to legislation of the drugs to conform with pharmacopoeia regulations. I am not sure whether that particular trouble has been treated. It demands our attention.

Dr. Caspari: The fact that Dr. Rose mentioned spirits of nitre. This is unfortunately one of those preparations over which the most careful pharmacists and chemists cannot exercise complete control no matter how carefully made and kept. It undergoes progressive deterioration, and the only thing that could be done would be to have a lower limit fixed, below which it would not be legal to sell it. When it goes below three per cent it should be ruled out. The question that Dr. Brown has raised, I think, is one that we have been battling with in all of the states, this question of selling drugs in country stores. I feel satisfied that if the Congress of the United States will undertake to make the amendment that the states will soon follow it. Maryland is compelled to follow the government regulations, but we have one advantage over the Federal law—that we do not allow the substandard opium preparations.

The Chairman: Gentlemen, we had on our program an address by Dr. Oscar Dowling of Louisiana. As you know, he is not here. It is suggested that Mrs. Robinson give us a talk on the work of canning tomatoes, and if there is no objection I take pleasure in introducing to you Mr. L. C. Irvine, representing the Mobile Chamber of Commerce and Business League.

Mr. Irvine then introduced Mrs. Birdie Inger Robinson, assistant state agent, in charge of the Girls' Canning Club Work in Alabama.

In her presentation of the detail of the work of the department under her charge she not only showed a complete familiarity with the subject, but made it clearly manifest that the comparatively new field in which she labors is one of such importance that it will receive more attention in the future.



The Girls' Canning Club of Alabama



By Mrs. Birdie Inger Robinson—
Assistant State Agent in Charge Girls' Canning Club Work in Alabama

LADIES and Gentlemen: It gives me much pleasure to be in the historic city of Mobile; Mobile, the only American city which has seen five flags wave as emblems of the peaceful rule of as many civilized powers.

In the early seventies society considered herself too high to do much in agriculture, but after a few fleeting years exploration and religion went band in hand. It was realized that there was a great gulf country and that Mobile was the entrance of a new power into it. Her waters were then well known and fringed with industrious plantations.

It has been well said that "Peace hath its victories no less renowned than war, but of less incident." The settlement of Alabama, the immigration from the Atlantic states to the lands won by the Civil War developed her gulf port. Cotton was King and Mobile was made Queen. Even in 1818, the year before Alabama had become a state, Mobile had established her "Bank of Mobile" and primitive steamboats such as the "Harriet" and "Cotton Plant" built much on the order of Fulton's "Clermont" were already plying the rivers.

Since the Civil War Mobile offers a fruitful field of study. The few flush years when commerce first rivaled; the masters with the slaves over them during the reconstruction period; the bond issues from 1870 on railroads that were never built, resulting in bankruptcy in 1879; then the awful panics from 1873 to 1893—all these with their deluge of later misfortunes such as fires, flood, pestilence, would tend to depress any people, but they did not daunt Mobile. With all, she showed she was sound in character and strong in spirit, for what she could conquer she has overcome; for what she must lose she has substituted other industries.

No wonder that farmers from the North are fascinated by the prospects of land values, development and profitable farming in this coast country. On account of close proximity to market, transportation facilities and the possibility of obtaining two or three crops in a year, agriculture is especiallv attractive to new settlers. Mr. I. B. Maynaider, of the U. S. Soil Survey, has announced that "Soils of the character found in and around Mobile are especially adapted to the small fruits and vegetables, as well as cotton, corn and other staple products." Their cultivation would prove highly profitable on account of climatic conditions and drainage.

Mobile's population, trade and prospects are greater than she has ever known. She has carved her own place in wealth, culture and industry. Quiet but energetic people are sheltered in her pleasant homes, and her shady streets and drives invite visitors. I would exclaim with the writer that "Mobile was born in romance, baptized with fire, educated in commerce, her past is interesting, her present prosperous, while her future surpasses them both."

The opening of the Panama Canal, a gateway to the world, as it were, means much to Mobile, and to Alabama. I should be glad to offer a word of commendation to the committee in charge of the celebration and a word of appreciation to the parties who gave the idea of a memorial to the Hon. John T. Morgan, the beloved senator from Alabama, who should rightfully be called the "Father of the Panama Canal." In reviewing the life of Mr. Morgan, I am carried back to his childhood. His parents moved from Tennessee to Alabama, when he was about nine years old. In a country neighborhood he spent his years of youth and then attended the country school, where were laid the foundations of that intellectual training, which in its fullness and maturity was destined to be the admiration and wonder of the world. It is doubtless true that a subsequent love of justice and his profound knowledge of and love for things of nature received their first nurture and impetus from the primitive and unpolluted enviroment of his childhood. The educational advantages at that time to poor country boys were pitifully meager, but in addition to his natural sprightliness the future senator was blessed with a mother who, with patient admonition, daily encouraged him to the acquisition of knowledge and wisdom. This is but another illustrious instance of the Godliness, sacredness, steadfastness and patriotism of an American mother wrought into the fabric of a splendid manhood's service to a grateful Republic. Ladies and gentlemen, this is but another striking example of the "diamonds in the rough," as it were, that live on the farms all over this country of ours. It is but another call to our duty to see to it that these boys and girls, the citizens of tomorrow, have the influence thrown about them that will uplift them and make them useful men and women.

At this point I am happy to present the Girls' Canning Club work, which we hold will make the girl a more interesting pupil, a kinder daughter and a more useful member of society. Since God has so richly endowed this people with culture and thrift, and has placed them in a land so well adapted to the work of the nature of the Girls' Canning Clubs, I believe a movement of this kind which has proved to have not only a cultural value, but a monetary value as well, will be of great benefit to the country homes of your county and give you an unlimited amount of pleasure because you would know you are helping in a great cause. Club work is helpful in attracting the attention of young men and women to the advantages of farming as an occupation, in waking up the older farmers to the advantages of better methods of productions and in assisting the public school system in vitalizing rural education.

In the Girls' Canning Club work, the U. S. Department of Agriculture is co-operating with the College of Agriculture as in the Boys' Club work. The funds for this work, which come through the U. S. Department, are appropriated by the General Educational Board of New York. The funds used by the College of Agriculture are appropriated by the state of Albama.

In 1911 the Girls' Canning Club work was organized in two counties in Alabama as an experiment. In Pike county for the southern part of the state and in Walker for the northern part. In the organized counties there is a local agent employed jointly by the county, the Alabama Polytechnic Institute and the U. S. Department of Agriculture. It is the duty of said agent, working under the direction of state agent in charge of girls' work, to visit the club members from time to time, to conduct canning demonstrations for their instruction, collect, compile, and submit report to the state agent at the end of the season. The objects of the girls' work are: first, to teach the best methods of growing tomatoes and to increase interest in home gardening. Second, to teach best methods of canning, and to stimlulate wholesome co-operation among the members of the family in the home. Third, to assist the mothers in having a supply of fresh vegetables for the table. This makes possible better living at a lower cost and saves things otherwise often wasted. Fourth, to provide means with an educational value by which girls may earn money. Fifth, to put the home and school in closer relationship, thus increasing interest in home life and encouraging girls to think along the lines of home making. Any movement which enables the teacher to more fully discharge her duty to the child, the parent and the community should be readily grasped.

The Canning Club, as the name would indicate, is decidedly practical and, being based on tried theories, is pedagogical. It affords a most excellent opportunity for correlation work in that it can be combined successfully with every other subject taught in the school room.

I would like to call your attention to the commercial side of the work. The problem of the production of the home is a problem of the home, a vital and all important feature in the economy of the farm. Hundreds of carloads of vegetables are shipped into Alabama each year from neighboring states. These are consumed by people who live in a state with the greatest possibilities for the production of fruits and vegetables, and there is no reason, with the modern conveniences for canning and preserving, why surplus products should not go on

the markets in Alabama from the garden plots of the Canning Club girls. Work of the nature of the Girls' Canning Club carried on by the white girls of the rural and urban towns afford them an opportunity for a business both pleasant and remunerative and at the same time gives them the protecting influence of the home.

There is unquestionably a demand for the canned products put up by the girls, and this demand will be a continuous one, provided the products measure up to the standard of excellence which is dependent upon both quantity and quality of goods canned. It will, therefore, be the aim of those directing the work to impress upon the girls the importance of seeing that every can put up by them is well filled with ripe and sound fruits and vegetables. It is our hope to equip every country home with a small canning outfit for the saving of the living that goes to waste on the average farm. First, stocking the pantry; and, second, selling the surplus; then organizing the girls and their mothers into domestic science clubs and teaching the club members the value of the dollar by having them keep an actual account of the expenditures made on their plots.

We have found that nothing stimulates the girls to their best efforts as the prizes offered for excellence in the results from their plots. I quote from Year Book 1911: "One of the strong features has been the method of awarding these prizes, the prizes not being given the girl raising the most tomatoes on her one-tenth acre but the practical and educational value of the lesson is kept in mind, and in making up the award emphasis is given to the best yield, minimum cost of production, quality produced, and best written report of the undertaking. The prize winner in the Boys' Corn Club in each state as a rule has part of his reward in a prize trip to Washington, when the boys from the several states receive much attention and have opportunities to see and study the interesting things in the Capital City."

I wish to say here, this is the first year an opportunity has been given to prize winning girls from the several states organized in the Girls' Work to go to Washington. But I feel sure that some way will be provided for the Alabama girl who has done her best, and been more successful in this great work, to take a trip along with the winners of the other states.

I wish to give the results of the work of 1912 of two counties in the state—Pike and Walker. And if there is anyone in this audience who think this work merely an attempt to interest the girls in gardening and household work. and the boys in agriculture, I am sure he will change his mind, and know that there is a money side to it.

Mrs. Robinson then exhibited to the audience several charts showing the records of the Girls' Canning Club, and other statistics compiled by her department with reference to the work that is being carried on by her and her department. These charts were as follows:

Alabama Boys and Girls won over every other State by Two Hundred Points. Grand Trophy. Twenty Alabama boys averaged per acre 164.5 bushels at sixteen cents per bushel.

In 1911, on Alabama soil, Junius Hill, of Etowah County, grew 212.5 bushels at 8.6 cents per bushel.

Arie Hovater, Russellville, Alabama, put up 1,531 No. 3 cans of tomatoes from one-tenth of an acre.

Meta Grace, Oakman, Alabama, put up 225 different products canned. No two alike. 137 Alabama boys made over 100 bushels on their acre.

Average of One Hundred Best Records, 1911.

97	$0.30	78.5	$67.90	Total profit,
Bushels.	Cost per.	Increase.	Profit.	$6,790.00.

Three Best Records to Date.

Name—boy.	Bushels.	Cost per.	Increase.	Profit.
E. Kimbrough	224.75	$0.190	306.25	$180.04
Junius Hill	212.50	.086	194.00	194.22
J. P. Leach	195.58	.103	177.08	175.25

Corn at $1.00 per bushel.

Results of Ten Best Boys in 1910.

Aver. bus. per acre.	Aver. cost per bu.	Increase, bus.	Average profit.
103.5	$0.28	90	$74.52

Total profit, $745.20.

Local Monroe County Club, 1911.

Boys.	Aver. bus.	Aver. cost per bus.	Aver. ord. yield, bus.	Increase, bus.	Aver. profit.
35	7	$0.27	12	59	$51.83

Total profit, $1,814.05.

Growth of Boys' Corn Club in Alabama.

Year.	Counties represented.	Number boys enrolled.
1909	2	265
1910	17	2,100
1911	52	3,800
1912	67	10,894

Growth of Boys' Work in Marshall County.

Year.	Boys.	Aver., bus.	Average increase.	Schools helping.	Boys making over 100 bus.	Prizes.
1910	1	50.5	37.00	1	0	$ 5.00
1911	18	60.3	41.80	4	1	25.00
1912	270	85.3	66.87	42	4	165.00

History of Girls' Tomato Clubs in Alabama.

Year.	Counties represented.	Number girls enrolled.
1911	2 (Pike and Walker)	240
1912	14	2,630

Results of Work in Pike and Walker.

No. cans put up Aug. 1st, 1912.		Value per can.	Total value to county.
50,000	Pike	$0.10	$ 5,000.00
400,000	Walker	.10	40,000.00

Best Record in 1912.

Name of girl.	Size plot.	No. cans put up.	Cost.	Value.	Profit.
Arie Hovater	1/10 acre	1,531	$50.00	$153.10	$103.10

No. 3 cans valued at $0.10 each.

Dr. Bryan, Illinois: Gentlemen of the convention, as the representative of the state of Illinois, the only state east of the Mississippi which has, thus far, granted the right of equal suffrage to women, it is a great pleasure on this occasion for me to move that this association extend to Mrs. Robinson our hearty thanks for the entertaining and educating address which she has delivered this evening, and which has proven to us that woman is essential to the success of our lives in all its walks.

Mr. Barney, Iowa: Gentlemen, coming from the state of Iowa, the greatest corn state in the nation, it gives me a great deal of pleasure to second Dr. Bryan's motion.

Mr. Winkjer, Minnesota: I want to make a further motion that Mrs. Robinson's address be printed in the records of the association.

Dr. Bryan: I will second that motion.

The Chairman: Gentlemen, you have heard the motion, that we extend a vote of thanks to Mrs. Robinson for her address, and further that her address be copied into the records of this association. Those in favor of this motion will please signify by saying "aye" and those opposed "nay." The "ayes" have it and it is so ordered.

The Chairman: Gentlemen, the next thing on the program will be a paper by Mr. R. M. Allen of Kentucky on the subject, "The legitimate scope of the work of this Association, and to what extent, if any, it is entitled, as it is formed, to criticise the action of individual States in relation to legislation and administration of food and drug laws."



The Legitimate Scope of the Work of This Association



By R. M. Allen, Head of Food Division
Kentucky Agricultural Experiment Station

THE functions of the association are well stated in its constitution. The only question is as to the proper and best effective means for carrying its purposes into effect. In 1901 it was an association with but promising influence, meeting with scarcely press notice in Buffalo, and yet with more unity of purpose, more agreement as to facts than has probably ever been experienced in the history of the association. In 1902 a representative of one of the large departments of the trade, in favor of the enactment of a national pure food law, stated to me that the law had not been passed because of the failure to secure the endorsement and active support of the state food commissioners for the bill which had been reported by the committees of the House and Senate. In 1904 Mr. Hapgood, of *Collier's Weekly,* stated that what the work needed was specific facts as to where and wherein different food stuffs were adulterated. In 1903 the association for the first time joined their forces with the federal officials behind one bill, the Heyburn-McCumber bill, and undertook, through exhibits and material furnished the press and magazines, to give the country the specific facts as to just what particular bottles and cans and brands of food had been found to be adulterated. The association was close in touch during those and subsequent years with many other influential organizations throughout the country. It had a definite program, namely the passage of a national law. It not only threw the weight of its own influence, but it sought to organize every influence which could come from the country generally into co-operative action. The law had not been passed until this influence arrived. President Roosevelt gave the effort which the association displayed first credit for the passage of the national law, probably more credit than was deserved, but the result demonstrated what great accomplishments are within the power of the association when there is co-operation and concentration behind a *definite program.*

The pure food reform, with the exception of certain localities where conditions are still exceptionally bad, has, on the whole, passed from the period of agitation to the period of constructive effort. But the association has ahead the perfection of the national law both from the standpoint of administration and legislation, and the perfection of the state laws along such lines and in harmony with such model. To do this we must first establish more of co-operative confidence among each other, and, through well selected committees, take up all important matters in detail first for thorough study and recommendation, and then make the recommendation as finally adopted one of the association's definite lines of work.

It should be possible to collect the labels on extracts, for example, and to arrive at a uniform recommendation for both labeling and controlling of standards and purity. The flavoring extract manufacturers, both through individuals and their association, would give such a committee and our association full co-operation. The result accomplished could, with the necessary elasticity, be then written into the federal statutes and in the state laws. The result would be, that every single extract manufacturer in the United States from federal to state food control officials would know definitely just what is to be required in connection with the regulation of the sale of flavoring extracts.

There should be no dispute among us with respect to labeling. All are agreed that the labels should be plain, true and should tell the whole truth. Even in instances where there is some controversy as to whether a particular name should be restricted to a particular product, the controversy could be settled by such labeling as would designate and differentiate between classes of product each with a trade right to the same name.

The prohibition of antiseptics has been one of the foremost causes of discord in the association. Uniformity among us on questions in serious dispute and between the officials and the trade could undoubtedly be had upon a basis of a plain labeling; the label to apply to each and every sale whether between the manufacturer and wholesaler, or wholesaler and retailer, or the retailer and consumer, and the label to show in a plain and prominent manner the name of the antiseptic and the approximate amount contained in the product. It could also be agreed that in no instances should the antiseptic be used as a substitute for any deficiency in sanitary method of equipment or sanitary condition of the product. After fourteen active years in the food control work it is my conclusion that this is not only the most practical but the best means for regulating the use of antiseptics. In fact, practically everything that has been accomplished in Kentucky along this line has been accomplished through this means.

The association needs to adopt, therefore, a continuous and definite program with respect to such matters. Such work of the association should be divided up into committees. The membership of the committees should be impressed with the fact that they are to represent the whole association and give full consideration to all the facts and to every view rather than to represent one particular faction of the association or of the trade. Secretary Root's classic statement, "The controversies between nations are nothing, the spirit which deals with them is everything," is a sound philosophy applicable to affairs among states, communities and individuals, as well as among nations, and the greater good which the association can accomplish will not be brought about until such co-operative spirit is also established between the members of the association and those of the trade who are seeking for uniformity upon a basis of intelligence and efficiency.

The association has before it the still greater problem of local meat, milk and similar lines of inspection. Suppose the association, through a strong committee, should arrange during the coming summer for a bacteriological survey of the milk and scoring of the dairies throughout the United States, it would be easier than it appears to accomplish widespread results. The committee could work in co-operation with each official in the state charged with the milk inspection, the state officials could in turn work in co-operation with the state agricultural college, the State Board of health and the city and county health officials. The methods of bacteriological examination for general counting and determination of such bacteria as those of the B. Coli group are not so difficult but that the chemist and the average health officer can soon acquaint themselves with the methods. Under such a plan there could be concerted, widespread investigation of the sanitary condition of milk from one end of the country to the other, followed up by a widespread concerted action to establish the necessary laws, the city ordinances and administrative machinery and that support of the dairy industry necessary to effectively deal with the problem in the future. The work might impose some hardship upon the secretary and the individual members of the committee, but the association is made up of men willing to render the fullest amount of voluntary service in such a cause, and, with a definite milk plan of this character, it will be possible, if necessary, to secure the expense incident to the campaign, and which may not be secured from the state fund from philanthropic sources.

As I have pointed out, the association was effective in its fight for the national law because of close co-operation with other organizations interested in pure food and with the press and magazines generally. The task before the association and the individual officials is one which they cannot accomplish alone. Every effort must be put forth to secure and hold an intelligent public sentiment, to secure the co-operation of other organizations doing similar work, in order that there may be unity, in plan and purpose, and the closest co-operation with the dairyman, the baker, the manufacturer, and food dealer as the best means for putting the

broader principles of the work into every day practice. I would recommend, therefore, that the association, notwithstanding the excellent work which it has done and is doing, should be more thoroughly organized so as to not only put every single force that it has to doing a definite line of work, but so as to bring all other pure food forces to the support of such a plan. In short, we need a more definite program and one that will be aggressive and continuous until results are accomplished. The country looked to the association between the years 1903 and 1906 for the specific facts which necessitated the passage of a national law, and all concede that the association is the best body to undertake the task of shaping the present system of federal, state and municipal food and drug regulations into a model of effective uniformity and of intelligent and efficient administration.

Against any abuses which are within the province of this association, it should stand ever ready to give warning. We should be slow to criticise individual members and only in such instances as when it is an association matter. For example, if the Secretary of Agriculture or any of his bureau or division chiefs, administer the federal laws in a way that is contrary to the interests of the general public and contrary to the fundamental pure food principles, I would not hesitate, as a member of the association, and after such conferences as would leave no mistake as to facts, to vote for a resolution calling attention thereto. If the meat or other conditions in Illinois or Nebraska or Kentucky were such as affect the health of citizens of other states, I would not hesitate, as a member of the association, to vote for a resolution calling the attention of the public to the facts, notwithstanding the resolution might reflect upon the federal laboratory, the federal inspector or the state official in control in a particular state or section. The association should not spend its time looking for such opportunities, however, but in the pursuance of those other and broader policies which, when pursued, are the best guarantee against necessities for criticism.

This association, organized as it is by those actually engaged in food and drug control work, and continuing its meetings from year to year, not only has a right to become, but is the only institution in the country for the accumulation of those demonstrated facts and tried methods of legislation and administration which every new federal or state official must know before that official can accomplish an intelligent, constructive and forceful administration of the food and drug control laws. All of us, whether from the State or Federal departments, come and go, others take our places, but it should be our effort to make the reports, resolutions and other actions of the association the widest source of information, the most dependable guide to the new official, and to all others undertaking to deal with matters affecting the investigation or regulation of foods and drugs.

It should be made that national force to which the trade can look for intelligent investigation, open hearings, fair treatment and nothing more, and the force to which the general public can look for pure foods.

Mr. Allen: Mr. President and Gentlemen: I move that the incoming president of the association, and the incoming chairman of Section A and Section B, be constituted a committee to organize the work of the association into committees and to appoint temporary committees for the conduct of that work, to make reports at the next meeting of the annual convention of the association.



R. M. ALLEN.
Head of Food Division, Kentucky Agricultural Experiment Station.

In connection with that I move that the incoming chairman of Section A and Section B appoint a committee to take up the work and of organizing such work, and the appointment of the joint committees.

Dr. Caspari: I second that motion.

Dr. Bryan of Illinois: The remarks taken in connection with the paper read to us makes me to think that we should take very deliberate action if the spirit of the motion is to be judged by these remarks, and by the remarks with reference to the compilation of scientific data and scientific methods and facts by this body. There are already several associations in the field who have for years prior to the organization of this body been interested along the lines indicated by those remarks; for instance, the Association of Agricultural Chemists has for years busied itself with analytical methods. For this association to step into the field of that association would be a grave error. We also have an association which is engaged in revising the Pharmacopoeia, and others who are interested along these lines, and I would not be in favor of this association undertaking to usurp the field which has already been occupied by those associations. I am heartily in favor of the idea that we should have committees that should not be only temporary, but permanent, acting along special lines, and reporting yearly to this convention and to this association, but I cannot vote for this motion unless it be distinctly understood that we do not intend to infringe upon the fields of these other associations who have in the past done their work so thoroughly and so well.

Mr. Allen: It is not in any sense my intention that we should infringe upon these other associations. It was simply for the purpose of bringing to this association a definite, specific program for this association.

Mr. McKinley: In view of the fact that there is but a small representation of the body here now, I would suggest that the matter go over until tomorrow, or the next day, and be made a special order of business. I will make that suggestion in a form of motion.

Mr. McKinley's motion was duly seconded.

The Chairman: Gentlemen, you have heard Mr. McKinley's motion that this matter be laid over until tomorrow and be made a special order of business, those in favor of this motion please signify by saying "aye," those opposed "no." The motion is carried, and it is so ordered.

Dr. Bryan: I think that this is a very important subject, and there are only a few here, and we have only a small representation at this meeting, and we should not cut the discussion on this subject short or act hastily. I therefore move that we adjourn.

This motion was seconded and, there being no objection, the chairman announced that the convention would adjourn, to meet again tomorrow morning at 9:30.

Appointment of Special Committees.

THE Chairman: Gentlemen, I take pleasure in appointing the following as the Committee on Credentials:

Dr. E. F. Ladd, of North Dakota; Dr. T. J. Bryan, of Illinois; Mr. S. C. Dinsmore, of Nevada.

The Chairman: The next Committee to be appointed will be the Committee on Resolutions, and I take pleasure in appointing the following gentlemen to serve on the Committee on Resolutions:

Mr. J. S. Abbott, of Texas; Mr. James H. Wallis, of Idaho; Dr. Charles Caspari, Jr., of Maryland.

The Chairman: Gentlemen, I now take pleasure in appointing the following gentlemen to serve as the Auditing Committee:

Dr. J. R. Chittick, of Iowa; Commissioner. W. D. Saunders, of Virginia; Dr. George B. Taylor, of Louisiana.

Report of the Executive Committee on Program.

THE Executive Committee think by working two evenings and re-arranging the program that the work of the Association can be completed Thursday evening.

The Committee, therefore, recommend that the work be completed Thursday evening and that the Association accept the invitation of the Chamber of Commerce & Business League to take the boat trip to the Oyster Reef Friday.

Arrangement of the program recommended is as follows:

Tuesday morning and the section meetings remain as they are.

Program of Wednesday morning to be taken up Tuesday evening.

Program of Thursday morning and as much of afternoon program as possible to be taken up Wednesday morning.

Thursday afternoon program to be finished Thursday morning and the Friday's program be completed during the day Thursday and evening if necessary.

Respectfully submitted,
W. P. CUTLER,
JAMES H. WALLIS,
W. M. ALLEN,
Executive Committee.

The following telegram was then read by Mr. Taylor, Louisiana:

"Minneapolis, Minn.,
June 16, 1913.

"Geo. B. Taylor,

"Food and Dairy Assn., Mobile, Ala.

"Please present my compliments to president, other officers and members and express my regrets, account inability to be present. Hope you may have satisfactory meeting and jolly good time. It is very warm here.

DR OSCAR DOWLING."



A Sketch of the Association's New President



JAMES HEARKNETT WALLIS was born in the city of London, England, on April 13th, 1861. His father and grandfather were employed throughout their lives in the service of the English government, his grandfather being turnkey in the Tower of London, in which memorable place the subject of this sketch spent his early life.

At the age of fourteen years he was bound apprentice, under the apprenticeship laws of England, to serve seven years for the purpose of learning the newspaper business. At the age of twenty years he came from England and settled in Idaho and published one of nine papers then published in the State of Idaho. He has owned papers ever since that date until being appointed State Dairy, Food and Sanitary Inspector, at which time he disposed of all his newspaper interests. When twenty-seven years of age he was elected County Prosecuting Attorney and was admitted to practice before the Supreme Court of the State of Idaho. He has been, five times in succession, City Attorney for his home town, and held the position of United States Circuit Court Commissioner for twelve years. He holds degrees in law from the University of Nebraska and the Grant University of Chattanooga, Tennessee. In addition to these positions he has been honored in other ways by the governors of his State and by his people at home, and is also president of the Idaho State Press Association.

He was married two months after his twentieth birthday to his present wife, Elizabeth Todd, whose birthplace was London, England, and who crossed the waters with him in 1881. They have been blessed with nine daughters and six sons, five of whom are married. They have several grandchildren.

Mr. Wallis has served under both Democratic and Republican administrations, and is now completing his third term as State Dairy, Food and Sanitary Inspector. He is living at the capital, the beautiful city of Boise, and has elaborate quarters in the new State Capitol Building.

His last biennial report gives an idea of the work that has been accomplished under his administration.



The Third Day—Wednesday, June 18



MORNJNG SESSION

ADDRESS BY LUCIUS P. BROWN
ADDRESS BY DR. CARL L. ALSBERG
ADDRESS BY DR. WILLIAM C. FREAR

To What Extent Should the Functions of a State Food Department Be Regarded as Education?

BY LUCIUS P. BROWN
STATE FOOD AND DRUG COMMISSIONER OF TENNESSEE

IT will be observed that our title does not ask whether the functions of a State Dairy, Food and Drug Department should be regarded as educational, but asks to what extent this educational feature should go. I assume that the committee in making up our program believed that a certain amount of educational work was inseparable from the proper administration of such a department. Certain it is that any official in charge of such a department must soon come to realize that he must give this matter some attention. He will find that, even though the laws with the enforcement of which he is charged be not in advance of public sentiment they are almost sure to be in advance of general public knowledge and this is particularly true of the enforcement of the sanitary end of his work and to almost as great a degree of his dairy work, and such education must reach not only the consumer but also dealers and producers. As to the administrative value of such educational work there can be no question. The average producer wants to do right, and therefore requires only to be instructed. And consumers, when once they know what is required by the laws, which are, of course, based on exact knowledge and right dealing, will be careful to trade only with persons conforming thereto, and thus the department will make of each consumer an auxiliary inspector whose individual field will, it is true, be limited, but whose aggregate influence will be enormous. This influence will likewise be exerted in a very direct fashion, for a merchant whose wares are rejected because, for example, his store is dirty, is likely to very promptly clean up.

The exact extent to which the educational function should go must necessarily be determined by each official for himself. Generally speaking the official should do all the education work that is possible for him without interfering with the strictly police functions of his department, and he will find it necessary at times to strain a point to use educational rather than police methods. The courts and juries are representatives of the whole mass of people and if the courts do not understand the situation prosecutions are likely to be failures at times. I assume in what I have already said and shall assume for what I expect to say that a food and drugs department has charge of the enforcement of laws relating to the sanitation of food handling and food producing establishments. Where this is not the case the necessity is rather one of degree than of kind. A Food and Drugs Department having regard only to the chemical or physical purity of the foods produced may properly make use of some educational work, but it is not so vital for such departments as for one looking likewise after sanitation. For a department with the broad duties suggested it is often difficult to separate the educational from the police functions. Each inspector is a missionary. It is true that he goes only to the dealer, but he must instruct the dealer in the requirements of the law and in the reason therefor, and often an inspector orders the discontinuance of certain practices and the dealer is ignorant of what substitute to make for them. In such case the inspector should have constructive advice to give. Possibly, therefore, the largest part of the inspector's duties in the regular course of his work is educational. It is unnecessary to suggest that he ought to carry with him printed copies of the laws and rulings. There are few dealers too ignorant to understand them or to profit by them. An exceedingly important aid in such work is the grading of establishments as to cleanliness and equipment. Such grading points out in detail to the dealer his deficiencies, gives him a standard to work to, enables a comparison with others in the same line, and when the practice is followed, as it is in several states, of printing periodically such grades, a sort of compulsory education is inaugurated which is of great benefit to producer and consumer alike.

So much for incidental education. The great general public interest in food and drug matters, however, allows of going much beyond these methods. There is hardly any one who is not interested in the work of the enforcement of these laws and, therefore, a live commissioner can get a hearing with very little trouble. In this phase of the matter he may aim to get to the consumer or he may aim to undertake instruction of the trade. The latter function of course is only a specialization of the former in that he usually talks to men interested only in one line, using for this purpose local organizations and the meetings of state or national organizations. He may even go beyond this. May I cite a personal experience? About three years ago we undertook to examine into the quality of our drugs. We found conditions very poor. There was hardly a druggist in the state we did not have occasion to correct, the Capital city being as bad as any other section. It occurred to me that the druggists needed instruction and energizing. Getting hold of a few progressive men I suggested to them the organization of a Chapter of the American Pharmaceutical Association. With the prestige of a state department behind it the organization was highly successful and the success of the chapter has been great, among other things effected being the securing of the meeting of the national organization at Nashville this year. This success has been due entirely to the druggists themselves and I believe cannot fail to benefit the trade greatly.

Lectures by someone connected with the department to civic organizations, and particularly to women's clubs, will be found of value. These ought to be made as interesting as possible. Object lessons should be used; talking is always dry work, both for talker and hearer, but when seasoned with an exhibit of photographs or specimens, real good can be done.

Exhibits at state fairs have, as we all know, been profitable. Expositions of other sorts can be used to advantage. The so-called pure food shows usually have for their object not so much the showing of pure foods in general as of certain foods more or less pure in particular. They require to be used with judgment. Possibly not as many crimes have been committed in the name of pure food as in the name of religion, but it is quite certain that the former has been made to bear the brunt of a great deal of advertising and self-exploitations. We have seen of late pure food campaigns actuated by quite as selfish motives as the old time fight against food purity of any sort, and unfortunately such campaigns are to that extent discredited from the beginning.

Enlarged photographs of good and bad conditions have been found of value. I carry myself always a high grade camera and use it freely, and have lately adopted the plan, which is as yet in an experimental stage, of equipping the inspectors with cameras, with the prospect that much material of value will be secured. Often cartoons illustrating some particular point can be used to advantage. Where it is possible to get audiences in the evening, a lantern slide lecture will be interesting and instructive. Slides are not particularly expensive and may often be made by the working force of the department. I do not know of any department which is using moving pictures, probably because the apparatus and film is costly, but it would appear to be true that if slides are of benefit the more interesting form of picture work which is exemplified by the "movies" would be correspondingly

more valuable. Doubtless a really effective portable form of this apparatus will before long be perfected. Of course, such exhibits ought to show contrasts between good and bad conditions and processes of food manufacture would form an interesting subject for this work.

The patent medicine fight is one of the most important with which a food and drugs department is charged. In this work the department ought not necessarily to confine itself to illegal practices. The laws on the subject hardly go far enough to be of the greatest possible benefit. The officials will therefore find it of value and interest to make fairly complete series of analyses of goods which are properly labeled but which sell under deceptive conditions, and to show the goods, their analysis, their selling price, and their actual cost on placards. The series of stuff advertised in the latest development of this nefarious traffic, namely, the "Health and Beauty Aids" of such persons as Miss Valeska Suratt, Mrs. Mae Martin, and Dr. Baker (who, strangely enough, is not independent, but is employed by the Blackburn Company), and others who sell very ordinary materials under particularly fanciful names for particularly fanciful prices, will be found effective.

Health trains, particularly such as have been run in Louisiana and Minnesota, afford a very effective means of getting to a large part of the public. Most states run agricultural trains under the direction of either the State Experiment Station or of the State Agricultural Department, or both. Where the "Health Trains" do not run it would be found an easy matter for the Food and Drugs Department to equip a car or part of a car, which can be made a portion of the agricultural train. One of the most effective educational campaigns which was ever carried on in Tennessee was handled in this way through the broad liberality of our Commissioner of Agriculture. I mention the matter because as an object lesson it is more effective than general suggestions. This train consisted of nine cars, one of which was occupied jointly by the State Anti-Tuberculosis League and the Food and Drugs Department. Our own exhibit was of the usual type, consisting of pure and impure foods and drugs arranged along the side of the car with pertinent photographs and cartoons. At each stop the crowd passed through the train and as they passed through our car attention was called, sometimes after the manner of the side show "spieler" and sometimes by less noisy methods, to such portions of the exhibit as would appear to interest the particular locality or the particular people present. Occasionally a five-minute talk would be made outside the car to audiences of men or women, usually the latter. These talks were in conjunction with the Home Making Sections of the Agricultural Exhibits and therefore directed along their lines. At night talks may be made in halls secured for the purpose. It is hardly necessary to mention that a representative of the department was kept with the train at all times. The train covered the whole state, going into seventy out of the ninety-six counties, was on the road from July 1 to August 23, and it is estimated that we came in personal contact with about 250,000 people. If there be virtue in the advertising form of education, this train was certainly a success.

I have here a number of photographs showing the various phases of the educational methods mentioned above, and will ask that they be distributed and returned to the desk.



LUCIUS P. BROWN,
State Food and Drug Commissioner of Tennessee.

The Chairman: The discussion on this subject was to have been opened by Prof. Edwin DeBarr, of Oklahoma He is not here, so we will have a further discussion by Mr. Stallings, of Georgia.

Mr. Stallings, Georgia: Gentlemen, I did not prepare a paper on this subject because I did not have time. I will say this much, however, that in our State we have found that the educational feature is the only feature to work on in pure food work. We have found out that the manufacturer almost in every case is an honest man, and when he is informed of the requirements of the law, he tries to live up to them, and when we tell the people what the foods are they will do the best. Another thing is, that they always look for our bulletin on this subject.

Mr. Flanders, New York: I would like to ask a question about an impression the paper left. I don't know whether the gentleman was reading the paper from the standpoint of what the law is. The point I want to raise is the question of giving out information as to the value of the foods, or product, what it was produced for, and what sold for, whether that is not entering into the realm of a man's personal business. Should you do that, irrespective of what the law said on the subject?

Mr. Brown: I did not refer to foods at all in making that statement. I referred to patent medicines, and whether the law says so or not, I think it is the duty of every Commissioner to give all possible information without being unnecessarily offensive. He knows just how far he can go. He knows just how far he can proceed under the shadow of the law, and I think it is the duty of the Commissioners to give this information about the patent medicines, and if there is any doubt in his mind, I want to tell him that he can do it with impunity, because the patent medicine man is not going to say anything to him about it. The patent medicine man is doing an illegal business. It is his duty to give this information to his people, because they need to be protected against all kinds of faking. As to the food proposition, that is another question. I am not in favor of invading any realm of private business, but when a man is committing a rascality in business, the people ought to know about it.

Mr. Flanders: I did not intend to leave the impression that he was confining this question to foods. It came to my mind in a case we had in New York, in which the person in charge was printing a bulletin, not warranted by Statute, and the question arose about him printing a bulletin, stating facts which were not so. The Attorney General informed him that he would sue him for damages, if he did so further. This was a case in which the man was engaged in the fertilizer business.

Mr. Brown: Was that the Farmer's Fertilizer business in New York?

Mr. Flanders: No sir, I don't believe so, and I would not say who it was if I could. It was stated at the time that the fertilizer was not as good as it was warranted to be, and in printing his bulletin, he claimed to be under the standard of a moral right but not a legal right. Should we go on and do a thing that we think is morally right, even though it is not provided for legally? As a general rule, if the morals are on his side, and the man on the other side does not come into Court with clean hands, he can beat him, or take a stand that will

satisfy his conscience. Of course, he would be careful not to get himself into any personal suits. The Attorney General of the State is always on hand to answer such questions for a State official. I think a Commissioner should give him instructions to print the results of his findings and such comments as he deems pertinent.

Mr. Brown: The Tennessee Law does provide that, but my paper was not written with that thought in mind.

Mr. Abbott, of Texas: I want to ask Mr. Flanders a question on that fertilizer instance he cited. You say the fertilizer was analyzed and found not to be what it was represented to be?

Mr. Flanders: I said it was alleged, but I would not say the allegations were true.

Mr. Woods, of Maine: I will say that there is no doubt but that the analysis was away below the guaranty, but when they got it into an out-of-the-way place, where they thought it would not be found, they went below.

Mr. Abbott: I understand that the analysis indicated that the fertilizer was misrepresented.

Mr. Woods: No sir.

Mr. Abbott: How did he arrive at the conclusion that the fertilizer was not as good as the guaranty? I understood that the fertilizer was misrepresented.

Mr. Woods: No, sir; the manufacturer made claims in his analysis which were not borne out by an analysis of his sample.

Mr. Flanders: Let us assume that the fertilizer was not what it was represented to be.

Mr. Abbott: The part that was analyzed was misrepresented. The law does not authorize any authority to publish a bulletin on that. This law will authorize you to proceed against that Company for that misrepresentation. I want to tell you my conclusion. If the fertilizer was misrepresented, and we had no authority to publish a bulletin to that effect, but we have a law to prosecute the Company for that misrepresentation, then that is the course we should pursue, and after that course has been pursued, it is public property.

Mr. Flanders: Having once become public property, but before the Court says he is guilty you publish to the world that his business is not sound, then, I think that you would have trouble on your hands.

Dr. Frear, Pennsylvania: Well, we go to Court every time we get a clear-cut case. We try to be very careful about our evidence, and of course, there are a great many bad infractions of the law that never get to the public, and are not published, because they are settled without having to go into court.

Mr. Flanders: Your law then is permissible, but not mandatory?

Dr. Frear: It authorizes publication but does not require us to publish. In some instances we go to the courts for a test case, for the interpretation of the law, and when we do, we reserve publication until after the courts have acted, and then we give the results whether in favor or against them.

Mr. Ladd, North Dakota: So far as North Dakota is concerned, we would publish mighty little if we waited for the courts to proceed. We have authority to publish, but I would publish, whether I had authority to publish or not. The trouble that I have is to use good judgment in this matter. A commissioner who does this is pretty sure to be called into court sooner or later and my trouble was that I have had to go into court to defend myself against libel suits, but I shall keep on publishing results, until they find someone else.

Mr. Allen, of Kentucky: The question of publication came up in Kentucky. Our State law has always had a provision providing that the executors of the law shall make publication of all analyses. In making publication under the old system, viz: of analyzing food products, and reporting them in bulletin, we found that, despite every precaution towards accuracy, errors would creep in. Before 1908, we established a system of simply sending to every party interested, whether retailer or manufacturer, a statement of the facts which we were going to publish. We tried that with respect to the report of 1904. The replies that came back from the manufacturers shed a wealth of light on the particular matter we were going to publish. For example—the manufacturer stated that "we have corrected this condition," or he gave us some statement as to his particular problem involved. The publication of that bulletin, together with this statement, was received so favorably throughout the United States, that in 1908, we asked the Legislature to make this provision a part of the Act, provided, however, that before the publication of a statement not verified in court, the manufacturer or dealer shall be given a statement of the matters proposed to be published. If the manufacturer, in turn, with respect to an analyses not verified in Court, lodges with us affidavits, or if it be a technical question from a bacteriologist or chemist, that we are in error, then the law stops us, only we investigate further, and establish ourselves in Court. If we must confine ourselves only to the publication of such matters as are brought into the courts, we have confined ourselves to a very limited jurisdiction. We will make during the coming year, we will say, in Kentucky, about six thousand analyses. The people of Kentucky employ us as their chemists and their experts to do a certain line of work for them. If the gentleman from New York was engaged in a manufacturing business, and employed expert servants to do some work for him, he would expect such experts to give him the result of their work. So it is in our line—when we are employed by the people and the public, they are entitled to that information, but only on the ground that the information is correct or verified. We will say that there is no commissioner who reports all of his cases in court, but because of the fact that some of the manufacturers or some retailer has been temporarily stubbon, I don't believe that it is fair to publish one manufacturer who has misrepresented some article, against whom you have had a prosecution, and not publish another man who has done the same thing, but who has come up and corrected it, but all of those analyses should be given, and notice given in each instance of the facts that you are going to publish, and if this is done, we think that the trade will give you a wealth of stuff for your bulletin. This will make your bulletin of tremendously more interest and importance. Aside from this, the worst difficulty which Kentucky has in publication was in respect to products that have not been found to be adulterated and misbranded. Ten years ago, we published a large column of milks, which we had analyzed for facts, water, color, etc., and found not to be adulterated, but when bacteriological experts came along we found that they were highly dangerous for feeding. So we mislead the public, as to the adulteration of these milks. My point is this: Give the other side a frank statement of what you are going to publish, and if they contest you, take it to Court and settle it, and if they make an explanation, publish that explanation with the report you publish. Be careful that your investigation has covered the whole field before you set it out in your bulletin.

Mr. Abbott: I would like to ask Dr. Ladd a question: Doctor, does your law require you to issue a bulletin?

Mr. Ladd: Our law authorizes us to do it, but in spite of the fact that I have this law, I would still do it, even though I did not have the law, and for two years, I did not go to bed a night without a libel suit on my hands. I have defended them successfully, but I am not quite through with them yet. I go right on publishing. They say that I go beyond the law. I, however, shall continue to publish, because if I waited, there are lots of those people that would keep me waiting for six years. When I am convinced that I am right, I go ahead and publish.

Mr. Abbott: Doesn't your law give you authority over food and drugs?

Mr. Ladd: Yes sir.

Mr. Abbott: Then, when you issue a bulletin with reference to food and drugs, telling the truth, how does that come without the law?

Mr. Ladd: They say that I have drawn a personal opinion, and have exceeded the letter of the law.

Mr. Abbott: I understand, however, that you have authority over the article in question. You have authority to issue bulletins, and to analyze the article, and the only question is a question of veracity, and your chemists?

Mr. Ladd: It is more than a question of veracity. It is a question of error of judgment on my part, and whether I have not libeled them.

Mr. Abbott: It is then a question of the application of the law to this particular fact?

Mr. Ladd: Yes sir.

Mr. Abbott: But that is entirely within your jurisdiction, as I understand it?

Mr. Ladd: No sir; the courts have not held so. The Courts have held that if I have exceeded my authority, I am personally responsible, but I have not done so. I have seen to that part of it.

Mr. Abbott: This question of exceeding the law is a great question for us to consider. Doctor Ladd says that he is staying within the law in his judgment. I don't know how you feel about going out into these matters, which you have no control over, under the law, but I have said from time to time, whenever I addressed any organization of food manufacturers in Texas that if it can ever be shown that I have ever exceeded my authority, that I will resign instantly,

not because I am a lawyer, but because I know where to go to get legal advice. I think you are getting on dangerous ground when you take action outside of the law. It may sound childish for me to say it, but when you are doing that, you are a law-breaker yourself, and it is a question of degree and not a question of difference of kind. What you have done is what you are trying to get other people not to do, or quit doing. I think that we have got plenty of time to wait until we can get our laws to cover these questions. I think we have got plenty to do to stay within the law, as we have it until we can get the laws changed to meet these bad conditions. So far as our laws are concerned, I have had that in mind, and have had a section introduced in the law giving me authority to issue bulletins giving the work of the department, but I am in favor of staying within the law. If our laws do not cover that, we want to go to our legislatures and get it.

Mr. Helme, of Michigan: I do not think that the statement of the law made by someone here this morning has been quite broad enough. I am a lawyer now, and am interested in it, because I have a libel suit against me right now for ten thousand dollars. I have looked up the law quite thoroughly, and this I believe to be the law, and I think that I can produce the authorities for it, that every man or public officer, that is performing his duties, and performing a public duty in relation to the matter over which he has control, is not liable for any statement he makes if he makes it honestly and in good faith in the performance of his duty. Suppose my state analyst analyzes a product—perhaps he has made a mistake. That is not my business. Based upon that knowledge, I have the right to rely on him, and if I issue a bulletin, I am not personally responsible. I merely do that as a public officer in an honest way. If it could be proven that I issued it corruptly for money or for malice, then I would be responsible. But if in the performance of my public duties, in good faith, then I am not personally responsible. Our Supreme Court made a decision recently along that line, where they declared that a public officer required to perform a public duty, could not be sued for libel. He performed the duty, and did it honestly, but he was mistaken. You can see the pretty broad view of it. If every public officer was responsible for his mistakes, we would have no public business at all. Let me make the thing a little plainer. As to matters that are not under jurisdiction of my department, I would not have a right to make a report. For instance, fertilizer is not under the dairy and food department of Michigan, and for that reason I would not have the right to issue a bulletin on that. But any food for man or beast, or any medicine or drug, is under my department, and the law says, that, as Dairy Food Commissioner of Michigan, I shall investigate the abuses and correct them. How shall I correct them? I have the right, I believe, as a public officer, to expose any abuse in the dairy food line. (Applause).

Mr. Abbott: I see from the cheering, that I must be in the minority. I want to say that the issue is not clearly drawn evidently. Our friend from Michigan says that he stays within the law in advertising these trades, whether he gets into Court or not, and I agree with him just as long as I am staying within the law, but that is not the issue that I understood Mr. Brown raised. The issue is, whether or not I shall attempt to advertise something that I conceived to be a fraud, over which I have no legal jurisdiction. Suppose, as food and drug official, I will say to our friend from Michigan, you have a legal jurisdiction over foods and drugs; you have no legal jurisdiction over fertilizer—you have a Department of Agriculture to work on these things, then if you were to advertise in your literature the fertilizer that was a fraud, would you go ahead and issue a food bulletin bringing out the fact that here is a fertilizer that is a fraud?



E. F. LADD,
State Food Commissioner of North Dakota.

Mr. Helme: No sir. Because I have enough other things under my department to occupy my mind, and keep me busy.

Mr. Abbott: I still stick to the proposition whether I am in the minority, or not, that whenever a man goes outside of the law, as it is laid down to him by the Legislature, and takes up a lot of side issues, over which he has no legal jurisdiction, and advertises them, he is getting on mighty dangerous ground. I can understand why an agricultural college wants to take up these things and advertise them to the world as frauds, and he is going under the law, as an agricultural experiment station. He is going under the law, but if I have no legal jurisdiction over a certain matter on the market, under the law, I think it is well enough for me to take up the matter over which I have jurisdiction.

Dr. Frear: I think our apparent differences are arising really from differences in our laws. Surely there is no one here who would advocate that an executive officer deliberately go without the law, or who would deliberately make himself the Legislature in a case. The forms of many of our laws are partly criminal and partly beneficial, and we have been using the forms of procedure adopted by the state Supreme Courts, and we have decisions in a variety of cases affecting also the laws which the Supreme Court has laid down for the distinction—that in so far as these laws are criminal, the rules of evidence governing criminal procedure should apply, and the rules of interpretation applicable to partly criminal laws should apply, but in those instances where the laws are beneficial, with the intention of correcting the evil, they are broadly construed, and the evidence governing that would be governed by civil procedure rather than criminal procedure. I believe, however, that the powers that are given by implication must be used with the most careful discretion, because certainly the man who is enforcing the law dare not put himself rashly in a position as a violator of the law, when he has asked somebody else to obey a law that is very technical. We have, however, in the department of agriculture under the reorganizing bill, a provision for investigations without stating the subjects of investigation, and it authorizes a publication of the results of the investigations. We had no cattle food law; there was no authority in the State charged with the ascertainment of facts relative to the subjects, but under that broad privilege, the conditions of the market with respect to these materials was investigated and the results were published in bulletins of the department.

We went so far as to publish names of the people who sold the goods, and the brands, under which they sold them, and the representations made concerning the investigation. There was never a hint of any libel procedure or injunction against us. At that time, that method of procedure had not been resorted to and the result was that that published information, thus given, was sufficient to bring the Legislature to see the necessity of making laws governing those subjects, and committing them to some specific executive officers, but in all those cases we had warrant of law for every act we have done.

Mr. Flanders: I understand Dr. Ladd to say that he has issued certain bulletins, and had proceedings against him—but that the Courts have decided that he did not exceed his authority—then those decisions did not warrant you in doing something that your statute did not authorize you to do? That is my point exactly. When you pass a statute, giving you authority to do a certain thing, it is strictly construed, and when you step beyond that power, you are liable.

Mr. Stallings: Do you think that it is bad policy to publish your results before it is a legal case?

Mr. Flanders: Whether it is good or bad policy, I would not want to express my judgment. I think that is for the legislative body to determine.

Mr. Stallings: For example bleached or unbleached flour—our laws compel us to follow the rules of our National Government. What is the objection to stating in your bulletin that it was bleached or unbleached?

Mr. Flanders: I would say follow your law. I think the Legislature that passed that law passed it in wisdom, and being a mandate of the people, it is our duty, as a servant of the people to follow it, whether we think it is right or not.

Mr. Helme: Do you think anybody is going to get in serious trouble in telling the truth about something?

Mr. Flanders: Yes, sir; lots of times, he will. Dr. Ladd raised a point that I want to answer. He said it was a question of fact. Who was to determine the fact whether he published that in a spirit of animosity or in the spirit of truth. Does that not have to come before the jury for a decision?

Mr. Helme: Yes sir.

Mr. Barney: The law in Iowa, when I took charge of the Department, had a provision in it that we should issue bulletins. There was no provision in the law that gave us any authority to do any educational work. I think that if we keep within the meaning of the law in our different States, we will get, indeed, all the trouble we can take care of, and I have tried, so far as possible to keep within the meaning of the law, and I am quite a believer in educational work, and I believe that educational work should begin in your own department. In mine, we have had our inspectors get together two or three times a year for the purpose of talking over matters pertaining to the different kinds of work. I think we have gotten a good deal of benefit out of these meetings. We have men that are strong in cleaning up dirty butcher shops, and they tell their weaker friends how to do it. Now, I had this in mind when I had the law revised so that our department is authorized to do educational work. I didn't know but that our college would get just a little jealous of what we were doing, and want to know why we were doing this educational work, but with that in mind, we had the law revised, putting in a provision so that we would be within the meaning of the law to do this work. I had no trouble explaining to the Legislature what I wanted to do, and I am glad we had that clause put in, because now I don't fear any jealousy.



R. E. STALLINGS
Chief Chemist State Board of Agriculture, Georgia.

The following telegram was then read by the Secretary:

"Harrisburg, Pa., June 18-13.
"Association of American Dairy Food and Drug Officials,
Battle House, Mobile.

I extend hearty greetings to the association in session at its 17th annual convention and trust that it may be enjoyable and beneficial. I regret that I cannot be present.

JAMES FOUST,
Dairy and Food Commissioner."

The Chairman: Gentlemen: We have with us this morning Dr. Carl L. Alsberg, of the Bureau of Chemistry, Department of Agriculture, Washington, D. C., who will now address the convention. His subject will be "Collaboration Between the United States Department of Agriculture and State Officials; Its meaning and Extent."

What Dr. Alsberg said with reference to collaboration between the United States Department of Agriculture and state officials was in itself an important message, but what was suggested in the matter of general co-operation made a good impression on those present. In the past there has not been the high degree of harmony between federal and state departments. That is to say, the federal department was disposed to stand aloof from the state officials, whereas the paper by Dr. Alsberg indicates in strong terms that the department will not only welcome the state officials at Washington but will go out of the way to get the food officials to come to the federal capital and help themselves to such information as they may need, if they can find it. The department at Washington, in the very nature of things is able to acquire knowledge of importance to state officials, and it would seem that there is no good reason why the federal government should not allow the state to avail themselves of such knowledge in view of the fact that after all we are one family. Dr. Alsberg indicates that we ought to be a happy family, and appears to be willing and anxious to do his part to have it so. The federal bureau is a larger and important one, and from time to time comes into possession of facts which can be given to state officials without impairing the work of the bureau in any way. On the other hand, the states should be able to contribute to the success of the federal department. In fact, colaboration and co-operation between the federal and state departments should be a profitable enterprise. If the cordial relations that Dr. Alsberg is trying to promote shall be as profitable as they ought to be, the way will be made smooth for a genuine harmonizing of federal and state food laws. It is true that a disposition is shown generally to bring the various laws into a better state of uniformity, but the progress made has been slow and there is still such a wide difference in our food laws that manufacturers and distributors, as well as retailers, complain. It looks at the present time as if better progress will be made in the future toward harmonizing our food laws, and Dr. Alsberg's attitude will no doubt hasten the condition desired.

Judging from his methods Moran appears to be determined to do this in a quiet way.



Collaboration Between the Department of Agriculture and State Officials



By Carl L. Alsberg—Chief of the Bureau of Chemistry

COLLABORATION is a big word, but we are practicing it at home, and in that connection I can cite to you the action which has just been taken by the three secretaries, and which you will read of or probably see in the morning's paper, abrogating Regulation 39. I think that this simple little act, which was done without loud agitation, defines the policy of the Department as a thousand statement, with all the rhetoric in the world, could not possibly define it. Now, I know you will all agree with me that this action is one of the most important pieces of progress that has taken place since the enactment of the Food and Drug Act in 1906, and it is important in a number of ways. It is important, not merely because it will enable us to control the supply of meat and food products made from meat, as completely as it has been possible to control other kinds of food, but it is also important because it opens up new fields of co-operation and collaboration, not merely between the Agricultural Department and the Food Officials of the States, but also with the National Department of Agriculture. It is needless for me to tell an audience such as this—most of you on the technical side have a great deal more knowledge of the law than I have—that this means that we will be able to help you in the States, as it has never been possible completely to do before this time, to see that the meat products, which reach the people of the States, will remain as good when they get into the States as when they left the packing houses. It means that the Bureau of Chemistry and the Bureau of Animal Industry will supplement each other; that the Bureau of Chemistry will take up the work where the Bureau of Animal Industry leaves it, and we will then have complete charge from stock on the hoof to the retailer and the consumer, and that will fill one of the most important gaps in our food control. Now I already see visions of great worry and perturbation in the minds of the manufacturers. They will say, "Here we have had the Bureau of Animal Industry, and had them approve our labels; now we are going to have to go to the Bureau of Agriculture." That is a question I have not as yet got authority to speak on, but I can say that with the co-operation which exists in the Department of Agriculture between all the bureaus, this difficulty is going to be reduced to a minimum. For the purpose of taking charge of meat products, the products over which the Bureau of Animal Industry has had sole jurisdiction, an Inter-Bureau Committee has been established which consists of a representative from the Bureau of Animal Industry and a representative of the Solicitor's office, and this committee is for the purpose of establishing proper collaboration between the bureaus. So we can supplement each other without conflicting or interfering with one another; so that we will do this work with the least possible difficulty to the public and the manufacturer, and with the greatest possible efficiency. I cannot yet say just what this committee will do, but the purpose of its assignment was to make the two bureaus work hand in hand, and to arrange the regulations necessary under the new conditions, so that the work can be carried on and the interests of the people protected with the least possible friction and revolution in trade practice, and I think that we are justified in trying to bring about such results with the least revolution possible, because the manufacturer and the consumer pay for it.

My excuse for talking so much about the Bureau of Chemistry and of Animal Industry and the Department of Agriculture in a talk which has for its subject "Collaboration Between the Federal Authority and the State Authority," is that the type of co-operation which we are now establishing within the Department of Agriculture is the type of co-operation and collaboration that we want between the Federal authorities and the individual officials and commissioners of the State. We do not want to duplicate one another; we want to supplement each other. Duplications are expensive and wasteful, but supplementing is economical, because it enables each party to do its share of the work, and it is unnecessary for the other party to do that work over again.

Now in this matter I feel that there is really nothing very new to say. We are all agreed that this type of co-operation and collaboration is highly desirable. I need not tell you that, because that is very clearly stated in the circular on this subject, which has been issued as the report of your committee some time ago. I do not see how that report could possibly be improved in theory. The trouble with it is that it has been allowed to a very large extent to remain theory, and has not been put in practice. What I am going to talk about, on this subject of collaboration, is not on the theory—we are all agreed on that—but it is the matter of carrying it into actual execution. Only on certain administrative details can I throw out suggestions which will serve as encouragement to you, gentlemen, to co-operate with us. If you will extend the same kind of co-operation to us we will meet you more than half way. It is on this basis that I wish to appeal to you gentlemen, and therefore I wish to say to you that in this matter I represent the Secretary, with whom I have discussed this matter. Whenever you gentlemen have anything to suggest, or any matter to lay before us, may you feel free, and we beg of you to feel free, to write or come to us directly to talk the thing over, and feel free to talk freely, as man to man, holding nothing back, so that we can get together and have a common ground for carrying out the objects on which we are all agreed, and the ideals we are all striving for.

When it comes to practical suggestions there are a number that might be made. One deals with the criticism which has been made—which was raised in the Scientific Department of this convention yesterday—that is, to put at the service of the various State officials the methods and the results of the investigations. We are no better scientists or better equipped to carry out investigations than you, but we have more time and money to carry out those investigations, and for that reason, we are in a position to carry out a great many researches, which you gentlemen would like very much to do. But samples accumulate. You try to take up research; but you never get it done. We are in a position to do some of that work, and we propose to do a great deal more of it than in the past because there is greater opportunity for doing it than in the past. I know that you feel that we have not made these results as rapidly available to you in the past as we might. There are two reasons for that. One is that the conditions of publication in the department have been such that it was very slow business publishing our bulletins. That has already to a very great extent been changed. An order has been issued which makes it possible for us to publish purely technical results of investigations in the usual journals, just as though we were heads of departments in universities. That will make it possible to publish many of our methods and results very much more quickly than in the past. Instances have been frequent in which it has taken two or three years, for one reason or another, to get a bulletin out and into the hands of the people who needed it. We are now in a position to get it into the hands of the people who need it—many of our results—within a short time. The second reason for not being able to give you our results as quickly as we would like is this: When the United States Government publishes anything it has a force which is tremendous. The majority of people, even scientists, assume that it is absolutely all right. We all know that the scientists in the Agricultural Department are as prone to make mistakes in that department as in the university, but the university people are held only personally responsible, while the Department officials are held responsible by the people of North America. We have then got to be absolutely certain that it is as accurate as human effort and the present state of our knowledge can make it. The result is that it takes us sometimes years to carry out an investigation before giving this matter out, which in your consideration you might think would take six months or so. Those are the reasons—the difficulty of publication and the difficulty of

being absolutely sure that we are accurate. There is another reason—there are three reasons—and that is that we have not always wanted to tell the manufacturer all we knew. The reason for this is perfectly clear. We do not want to give a manufacturer a formula for sophistication. To publish all we know at all times, as soon as we know it, simply puts a premium on doping certain articles. Now these results, it is questionable how soon we ought to publish them. There is a way of getting around that difficulty, and that way is this: more frequent consultations between the State officials and the Department of Agriculture. We can tell each other those things when we do not want to put them on record, in even confidential circulars or in any way. They put us in a false light before the general public. We don't want the general public to say that we are putting out information that we don't want public. We should make arrangemnts by which you gentlemen can come more frequently to Washington, and we get around to see you more frequently. With that end in view, we can do two things. The Department can send out its men when they have completed a special investigation, which may not be wise to publish; we can send that man to your laboratory, and keep him there, and work with your chemists, until your chemists and our chemists are agreed upon the way of doing things, and you, in your turn, can send your chemists to our laboratory and let them see how we are doing those things. We will lay bare to them all we know, and we will show them what we can about the analytical methods. I hope to carry out this theory of making of the Bureau of Agriculture an educational institution for the food chemists. A thorough and complete training of that kind is pretty hard to get, and I personally know of no institution in any country, in which a man who has got his first degree in chemistry, can specialize along those lines. The only way he can do it at present is to get an appointment as assistant chemist in a laboratory. I have an ambition to make of the Bureau of Chemistry that kind of an educational institution as well as the sort it is already, and one of the first steps in that direction would be to have your young men assigned by you for a time to the Bureau of Chemistry to work with our men there and be passed on from one laboratory to another, be transferred from division to division, and then they can come back to you and they will know how we do things, and that will introduce a spirit of co-operation. If we can feel free to send our men to your laboratories, we will have an interchange of ideas and points of view that will be invaluable. Now that is the only practicable suggestion I can make in the actual carrying out of this co-operation. It depends upon the spirit of the two co-operating parties. All you can say about it will mean very little while the spirit is lacking. All I can say about this type of co-operation is that I shall do my best to meet you gentlemen more than half way, and agree to co-operate with you in every possible way, and if you gentlemen will meet us in that way, we, without the enactment of new regulations, will get the co-operation, as outlined in the circular which is known to you all.

Aside from this co-operation between us, there is another way, the intangible sort of co-operation, in which you gentlemen can help the food officials. That is the co-operation in producing throughout this country a uniform condition of affairs, so that we may have in this country uniformity all along the line. You know the conditions at present much better than I do, but I feel that if we are to have such defects in the food law today remedied, it will be largely through the help of you gentlemen, in backing up Congress, and bringing it to the attention of the Department, what the defects are. If we can get together on all these matters, and see that our laws are uniform, we are going to have this situation vastly improved. If we had uniformity, it would save us a tremendous amount of work. Of course, that does not mean that State laws have to be identical with Federal laws. It means that they must supplement each other. There ought to be some way in which State laws and the actions of the State officials could be made to harmonize with the Federal laws, and the federal administration of those laws could be made to harmonize with the administration of the State laws, and if we could get uniformity of some kind, the people as a whole will rise up and strengthen us and support us, and accomplish a great deal of good, that we are at present unable to bring about. Of course this uniformity brings up the question of standards. We need some uniformity in the criteria by which we judge the quality of the goods with which we have to deal, and in some way we need uniformity of these standards, and I appeal to you gentlemen to help us in Washington to bring about such a condition—to help us get a criterion which we do not have to re-prove every time we go into court, which is our present condition. The time is not ripe for me to say just how that can be brought about. That is what we have to strive for in Washington, and on that point I appeal to you gentlemen for help. Of course, if we decide that it is desirable to have legal standards, we have to take into the bargain the disadvantages of legal standards. These standards, in the hands of an unscrupulous manufacturer, would simply supply him with a ready formula for sophistication, and for that reason I think that pure chemical standards are bad, and ought not to be made. They should not be made on chemical analysis alone. For certain products, we may get into a worse condition. We have to consider how we can get the greatest possible good out of the situation, and we may have to take a few unfortunate things into the bargain for the sake of accomplishing a great deal of good. I appeal to you to get uniformity of the laws, and criteria by which those laws will be enforced. You can cite for yourselves conditions in which the lack of such criteria has caused a great deal of trouble. I was going to say "evaporated milk." You know the condition of affairs there and why those conditions exist. We have got to get together so that this condition cannot continue.

Then there are other things on which you can help us. We are at present having the greatest possible difficulty with the "Guarantee" clause. We are all agreed that the "Guarantee" clause at present is used by many people for the purpose of defrauding, and many of the biggest firms of the country have ceased using it altogether. This was particularly driven home to me a little while ago. One of my closest friends wrote to me and said, "I am at a loss to understand how you people can possibly guarantee this medicine, because I know it is a fraud from start to finish." Now this man stands at the top of his profession. We are firmly convinced that something has to be done by the Department to alter that state of affairs. It would be desirable to alter this state of affairs without abolishing the guarantee. It makes it very much more simple for us to fix the responsibility on the manufacturer. How that can be best brought about I cannot say at the present moment. I hope if any of you gentlemen have dwelt on that subject that you will help us, and we will be grateful to you. We have got to do something with the situation, and you can help us by giving us advice. We can help you in a number of ways. I was interested in hearing of the difficulty which one of you gentlemen had because his State law did not give him a right to conduct an educational campaign. Now with the law which we have, we have the right to give out information. If you have not got the authority, if you will come to us, we will give you a commission from the Department of Agriculture; we will give you authority to publish information, as a Federal official, and you will be within the law in that way. There are scores of ways in which we can help you and help one another, if we can get together on this question. Gentlemen, I appeal to you frankly to come to us, when, and where you see a chance that co-operation and collaboration will result to the advantage of the people generally. I know that I have said nothing particularly new, and I do not see how much new can be said on the subject. I simply came here, as the representative of the Secretary, to assure you gentlemen that he is eager to give you gentlemen what help he can.

MR. ABBOTT: Gentlemen, I feel very much, after listening to this splendid and sensible address, just as I would feel after listening to a beautiful and fine piece of music—that it is improper and that it grates upon my nerves to destroy the feeling that the sweet piece of music has started in my soul, by the common, vulgar habit that we all have of cheering and cheering and cheering, and throwing up our hats. I feel that it would be just as improper and just as grating upon your nerves for me to attempt to respond to this sensible talk, as it is for me to hear all this noise and applause after this sweet piece of music. I feel highly flattered, that the Doctor said he agreed with me with reference to staying within the law, and I am delighted that he has proposed to you a method by which you may stay within the law in doing what you want to do, and what is beneficial in your state, as you see it. My interpretation of the Doctor's lecture, expressed in different language to what it is in the subject of the paper means "organization." "Organization" and philosophical organization of government functions. Of course, that is always necessary. That is the first thing that is necessary. That is the first thing that is necessary starting out



on the great line of work in commonplace language. I take it that it means for us to get together, which I heartily endorse. I also feel it a distinguished honor to know that such a distinguished man agreed with what I said at New Orleans—and that is a matter of record—with reference to the question of standards, and I don't suppose it is necessary for me to go into that question, and take up your time. I was profoundly impressed with the spirit of the lecture to the effect as I might express it in these words: Be sure you are right and then go ahead. There is only one question in the lecture that I want to emphasize, if it be possible for me to emphasize what the distinguished man has already said—and that is: the question of using every possible means among ourselves as state officials—the proposition rather, of using every possible means of getting every possible bit of information that we can possibly get with reference to the food and drug question in its broad sense. I have been many a time accosted by our Comptroller, who says whether or not we shall spend money for this purpose or for that purpose. I have been many times accosted with this sort of remark when I make out an affidavit that I want $150.00 to go to Washington, D. C., and when I take it down to the Comptroller, he says, "Well, you are going off on another pleasure trip," and he says: "What is going to be the next place you want to go to—what about your summer resort?" but I have always obtained the money, and I expect to continue obtaining the money, notwithstanding the fact that I have the right to do that under the law, only by implication, but I take it that a right by implication in the broad sense, on public health questions, is just as strong as a direct legislation on a specific function; so that is what I would say to the drug and food officials of the State—get all the money you can for going to Washington, Chicago or New York, or to St. Louis—wherever there are food manufacturing plants. You want to study wherever there is a place you can go, that will give you authority to get it and to protect the public; that will put you in a position to talk intelligently to the manufacturer. Get it and go, and if you have no authority to get it, go back home to your Legislature and get it to give you authority to get it and then go on. If the Comptroller worries you as he has worried me, get an appropriation for a fund of some kind that you can use for general expenses, but make it broad enough so that you can get it for the purpose which I have named. We have a fund of that kind in Texas, and if the Comptroller turns me down on the funds I need for prosecuting my work, and it happens that the Comptroller is out of joint with the Governor, who wants those laws enforced, I have a fund that the Comptroller has no control over, and I can go to the man that appointed me and tell him that I want a certain amount to go to a certain place for some purpose, and I say, I want you to "O. K." the bill, and he does it. If you have any depart-



DR. CARL L. ALSBERG.

Chief of the Bureau of Chemistry, United States Dept. of Agriculture.

ments of government that are conflicting as ours are, or that are separate and distinct, as ours are—the Comptroller's office and the Governor's office, you fix it so that you can go to the people who give authority for the laws, and get it from them. I trust that every man here will begin to go to Washington, and absorb all the knowledge he can get there. I have already notified one of my chemists that in July he is to go to Washington, D. C., and to stay around those laboratories a couple of weeks and get every particle of information he can get for us, and he will be there, Doctor, and I am taking it that your talk is a direct personal invitation to him to be there, and all the courtesies shown him, of course, will be appreciated. With reference to organization of the government department with the state department, I want to suggest that this organization should continue down to the states, between the state authorities and the city authorities. In Texas, we have about twelve state chemists. We are organized just as completely as we can be. We have had only one instance in which a city government has refused to co-operate with us—in which the attorney defended the people, whom we were prosecuting; in which the commissioner and the counsel as well as those officers whom I named were against us and refused to co-operate with us. That was a sad misfortune, but not my fault; so instead of begging them to co-operate with us, we went into their city and prosecuted them with every power we had, but it was not our fault that they got run over, and in three months that city government had changed administration. We must get together and help each other and we must organize and educate ourselves.

Mr. Potter: I do not wish to take up the time here today to discuss this very able talk of Dr. Alsberg. I could not do it if I attempted to. I simply wish to say that I, as Commissioner of Connecticut, am very glad to go home and report to the people of Connecticut that Dr. Alsberg is ready to co-operate with the Connecticut State Department and any other state department throughout the country. It gives me great pleasure to hear Dr. Alsberg come before the people here and say that he and the Department of Agriculture at Washington, D. C., are willing and anxious to co-operate with all of the Food Departments of the country, and also to co-operate with the manufacturers and packers of food stuffs. I believe that we can accomplish much more by co-operation in the enforcement of the pure food laws than by antagonizing the interests. "Co-operation" is the watchword, and I am going to leave it right here. I don't wish to criticise anything that Dr. Alsberg has said. I find nothing to criticise, but I simply wish to say that I am in hearty sympathy with the Department of Agriculture in Washington, as now constituted.



The Fat Standard as a Substitute for the Water Standard for Butter



By Dr. William C. Frear—Chemist to Pennsylvania Department of Agriculture

THE form of the question assigned for discussion implies that it is impracticable to employ for the standardization of butter only one of two reference points of composition. This conclusion it is disadvantageous to accept, unless the facts are such as to make it inevitable.

By the word "standard" as used in the question under discussion, I assume is meant only the reference point or points of composition to be used in judging the normality of the products as compared with others of the same kind; i. e., in comparing one butter with another; and that the purpose is even more limited, so as to include in the comparison only freshly made butter.

Butter is universally regarded as a highly fatty food of pronounced agreeable flavor; not useful, like meats, cereals, and even fruits, for consumption as the main article of diet, but rather as a highly valuable accompaniment of cereal foods, and a choice ingredient in many articles of cookery. Many who are interested in its production prefer that, for control purposes at least, it should be regarded purely as a condiment or flavoring agent; but its concentration and its fatty composition make its nutritious values even more prominent than its flavoring values; and this is well recognized by the general public.

It will, therefore, not do to regard butter merely as a well flavored lubricant, whose value depends, flavoring quality being equal, upon the superficial area a unit weight of it can conveniently be made to spread. All the physical qualities usually recognized in the commercial grading of fresh butter must be accorded high value for their specific purpose; but there are variations in butter composition of which they take no account, but which are, nevertheless, too important to disregard.

As respects quantity, two components of butter stand pre-eminently, namely, butter-fat and water. If butter contained no other substances requiring consideration, then either of these two substances might be chosen as the basis of reference for standardizing purposes; since a water-maximum would be the direct compliment of a fat-minimum. If this were the case, undoubtedly the water percentage would be the more convenient reference point, because, with the analytical methods now ready for factory use, the water determination is the simple and more accurate.

We are confronted, however, with the fact that butter contains other components, curd, ash, and salt, some of which exercise important influences upon the composition and keeping quality of the product, although their quantities, several and collective, are much less than those of the butter-fat and water. In consequence of the presence of these less abundant, but yet important components, the butter-fat and water are not strictly complementary in their quantities. Hence, if a water maximum standard alone be adopted, the complementary should consist of fat, curd, ash and salt; while if a fat maximum standard alone be chosen, the remainder consists of curd, ash, salt and water.

The abuses found in commercial fresh butters are, in the order of their importance, an over-abundance of water, excessive salt and excessive curd.

Butter producers take pride in the physical qualities of their product and scarcely less in their over-run, or the excess of butter-product over the weight of butter-fat in the cream used. With the former point of pride, the consumer has no fault to find; by the latter, the milk-producer is gladdened. But an over-run that represents not so much the saving of butter-fat, as a skilful incorporation into the butter of excessive amounts of components other than butter-fat, is a just cause of complaint from the consumer, who properly objects to paying butter-price for churn-water, and likewise objects to paying similar prices for needlessly large quantities of curd and salt.

In my judgment, the interests of the consumer require at least a dual standard of butter-fat and water; and, in view of the large development in recent years of the trade in unsalted butter, I incline to the belief that the time may be ripe for a distinction in the standards for salted and unsalted butters, respectively, by the addition of distinctive salt limits for these two trade products.

The butter standard proclaimed in 1903 by the Secretary of Agriculture is a dual —butter-fat and water—standard, based upon the data for salted butters. The analyses of creamery butter available to the committee, indicated that creamery butter might have an 85 per cent butter-fat minimum, if the butter was always examined under the conditions governing the compiled analyses, conditions that offered opportunity for the evaporation of some (1 or 2 per cent) of the incorporated water before the analyses was undertaken. It was not judged that the samples analyzed would represent the material fresh from the worker, but butter packed in tubs or cases, therein held and transported for some time, and then exposed in sampling and delivery to the analyst. The committee felt obliged, however, to take into account not only the creamery product, but also the domestic product, made often under conditions not only less rigidly controlled, but probably incapable of such control; and made by producers who were not in such position as were the creamerymen, to ascertain the standard quality of the product before marketing the same. The need for regarding the conditions and large volume of domestic butter production, compiled with the part that, in the then existing stage of the butter-maker's art, the creameryman could not always regulate with entire certainty, the composition of his output, led to the adoption of the 82.5 per cent for minimum. The committee did not fix the water limit. It found that by a joint regulation of the Secretaries of the Treasury and of Agriculture, a maximum limit for this component had already been fixed, and the limits of authority fixed by the language of the congressional art providing for the committee's work, were such as to preclude the committee from proposing, or indeed considering a change in this limit.

Consideration was, however, given to the question whether the margin between the water maximum fixed by the regulation just mentioned, and the fat minimum of the standard, was sufficient to allow for the curd, ash and salt. The judgment was that this margin did not require widening to provide for a combined water-maximum and salt maximum, since the tendency, of the salt increase was normally to secure a water decrease.

It is undoubtedly true that the creameryman can at present more conveniently ascertain the standard quality of his butter with respect to water, than with regard to any other component or to several components. This point is admittedly of weight in favor of the superior creameryman to trim off the water standard. The objection that the demand of justice for the consumer is superior, and that the difficulties of ascertaining the quality of butter in respect of components other than, are not insuperable, unite in my judgment, to outweigh the point just admitted in favor of the single water standard.

Finally, I concede that well conducted creameries do sometimes, without intent so to do, turn out batches of butter physically dry, but still overloaded with water. This unusual occurence is paralleled by the happenings in other industries, and demands no more latitude than these other industries receive in like case. Indeed butter can be worked over or incorporated with other batches of the same product with the result of attaining a standard composition, more readily than many other products, at first abnormally can be standardized. At all events, this kind of abnormality is our argument as valid against all standard limitations, as it is against any particular limit.

The Chairman: Mr. G. E. Patrick Bureau of Chemistry, Department of Agriculture, of Washington, D. C., according to program, was to open the discussion on this subject. Mr. Patrick, however, is not present at the Convention, and we will, therefore, call upon Mr. Joel G. Winkjer, of Minnesota, to open the discussion.

Mr. Winkjer, of Minnesota: Gentlemen, I must confess, in the first place, that I have not given the subject the thought that I suppose I should have. I have been loaded down with work, and had another paper to prepare, and it has put me in just such a position that

I have not been able to devote the time I should have devoted to it. I want to make just a few remarks that have come to me. I think the paper which has been read was very ably prepared and covers the subject quite thoroughly, not only from the chemist's and doctor's standpoint, but also from the practical side of it. I suppose I was placed here to take the practical side of it, and I have got two things to mention in connection with it. One is that it seems to me that the butter fat is the valuable thing in the production of the butter. and, therefore, that the standard should be in accordance with the percentage of butter fat. To have two standards would be very troublesome to the manufacturers. I believe that the fat standard would be preferable if a method of analyses could be made whereby the manufacturer could do it readily. I believe also that it would be well to make a distinction between the salted and unsalted. With these remarks. I will just leave it, and I think that the impression of Dr. Frear is in the right light.

Mr. W. B. Barney, Iowa: There was a matter that went over from yesterday, of Dr. Bryan's, and was to be brought up for consideration today. Is Dr. Bryan present?

(Dr. Bryan was not present at this meeting at the time.)

Mr. Allen, North Carolina: There is no provision for an evening session. I rather believe that we had better have a meeting tonight.

Dr. Frear, Pennsylvania: I make a motion that we hold a session of the convention tonight, to take up the program in its sequence, so far as possible, and that the subject matter of the motions of Mr. Bryan of Illinois, and Mr. Allen, of Kentucky, respectively, the consideration of which was postponed until today, be made a special order of business at eight o'clock tonight.

Mr. Allen, North Carolina: I second the motion. To be sure that we finish up the program tomorrow, I think it would be advisable to hold a meeting tonight.

Mr. Chairman: Gentlemen, those in favor of this motion to hold a session tonignt will signify by saying "Aye," those opposed "No." The "Ayes" have it, and it is so ordered. The convention will now adjourn.

At the evening session the able paper presented by Commissioner A. H. Jones of Illinois was read by Dr. Bryan, of Illinois. Commissioner Jones being absent. His subject, Net Weights and Measures, which follows, was treated at length and took into account the various laws and important amendments made in recent years by both Congress and the several states. Commissioner Jones recommended that each state food official should urge conformity in the state laws with the federal law on this subject.

Side Lights of the Convention

Many of the delegates came to Mobile expecting to suffer from the heat While the thermometer readings were high the balmy breezes from the bay made life pleasant for those who had hotel rooms on the bay side. Unfortunately the hotel had four sides and three of them did not face the bay. The beautiful roads around Mobile tempted many of the delegates and automobile rides were popular.

Regret that President Davies was unable to be present was expressed by all the officials. His genial personality had made him a general favorite.

Dr. Ladd of North Dakota, engaged in an able discussion with Commissioner Brown of Tennessee, Judge Flanders of New York, and Dr. Abbott of Texas, on the desirability or propriety of officials publishing results not expressly authorized by law. Dr. Ladd stated he went ahead and published, but admitted defending numerous libel suits, all of which he had won. Dr. Abbott and Judge Flanders were inclined to stay within the law. An interesting exposition on the law of libel, as related to acts of public officials, was made by Commissioner Helme of Michigan.



DR. WILLIAM FREAR.
State Chemist of Pennsylvania.

"Our Bob" was there from "Kaintucky, suh," wearing a linen suit and a white smile.

Dr. Cutler of Missouri, engaged in a little discussion with Dr. Abbott of Texas. The subject was, "When is an egg?" While no conclusion was announced the general answer seemed to be "When you see it laid."

It looked squally for a time, as the election of officers approached, but finally the dove of peace, this time a brown one, appeared, and a fine chance for an argument went glimmering.

Dr. Alsberg's talk created a profound impression upon the delegates. It was delivered straight from the shoulder and no delegate there but felt that every word was sincere. This speech marks an epoch in the relations of the Nation and State Food and Drug officials.

Commissioner Hansen made an able and kindly presiding officer. None of his rulings was questioned, and he was fair to all.

Commissioner Wallis of Idaho, now President of the Association, spoke strongly against fake pure food shows. He denounced in no uncertain language false and deceptive tests at such shows which are intended to, and do deceive the consumers.

When Commissioner Hansen found it necessary to leave the chair, he called upon the Second Vice-President, Commissioner Barney, of Iowa, to preside. No more efficient presiding officer has appeared at any meeting of the association.

The Bureau of Animal Industry of the United States Department of Agriculture was represented by Dr. Rawl, the genial chief of the Dairy Division of that Bureau.

There were many expressions of regret at the enforced absence through illness, of Dr. Crumbine of Kansas.

It was one hundred in the shade and going up when the time came to select the next meeting place. Dr. Ladd wanted the convention to go to North Dakota and Judge Flanders painted the beauties of Rochester. Then up rose Woods of Maine. As he talked it seemed that there were no such things as heat and humidity. Through the wide open windows came the pine laden breeze of the northland and just outside the coral waves of the mountain lakes lapped the shore. Wild and ungainly Moose ploughed through the forest. Soft-eyed fawns disported themselves in the green wood. And then as the shades of evening began to descend, slowly the silvery moon rose from behind the towering peaks. To dispel the chill of the day's end camp fires were lighted. And just then the delegates rose en masse, named Mount Kineo, Maine, as the next meeting place, and rushed to their rooms to get out light overcoats and ear muffs—while Woods, of Maine, he of the silver tongue, and the wiley way, smole a most inscrutable smile and wended his way to the roof garden, where he ordered a pink lemonade and a fan



The Third Day—Wednesday, June 18



EVENING SESSION

ADDRESS OF A. H. JONES
ADDRESS OF JAMES FOUST
ADDRESS OF B. H. RAWL
ADDRESS OF H. F. POTTER

Net Weights and Measure Laws

SHOULD THESE LAWS BE ENFORCED THROUGH THE SAME DEPARTMENT HAVING FOOD AND DRUG CONTROL OR THROUGH SOME OTHER AGENCY?—BY A. H. JONES—STATE FOOD COMMISSIONER OF ILLINOIS

MR. W. B. Barney, of Iowa, occupied the Chair in the absence of Mr. Willard Hansen, of Utah.

The Chairman: Gentlemen: The Convention will now please come to order. I will say, for the accommodation of some of the speakers, that we have made a slight change in the program. One of the papers is going over until tomorrow morning—that of Mr. Wallis, of Idaho, and in his place we will have the paper by Mr. A. H. Jones, of Illinois on "Net Weights and Measure Laws, and should these laws be enforced through the same department having food and drug control work, or through some other agency?" Commissioner Jones is not with us, but we are fortunate in having Dr. Bryan of Illinois, who will now read the paper.

The subject assigned me "Net Weights and Measure Laws and should these laws be enforced through the same department having food and drug control work, or through some other agency, is not a new one.

Congress, in passing the National Food Law, in 1906, that went into force July 1, 1907, in Section 3, under Article 8, declared upon this question of weight and measures in regard to foods, as follows:

"If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package," the article of food is declared to be misbranded.

Our last Congress amended this Section of the National Food and Drug Act so as to read as follows:

"Third, If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count; Provided, however, that reasonable variations shall be permitted, and tolerances and also, exemptions as to small packages, shall be established by rules and regulations made in accordance with the provisions of Section Three of this Act."

The proviso in this law was much needed by the manufacturers and packers of articles of food and drugs that were put up in very small containers, or small packages for the reason that it has been found nearly, or almost impossible to put up these small packages so as to show the quantity and the contents, and have the same plainly and conspicuously marked on the outside of the package, in terms of weight, measure or numerical count, as was required in the original law that went into force July 1, 1907.

When this amendment to the National Law was first submitted, I was inclined to think it was put in as a "joker" by the enemies of the "Net Weight and Measure Law," but the more I have studied this provision of the law, and the hardships imposed upon the manufacturers and packers on account of the requirements of the law—requiring the quantity of the contents to be plainly and conspicuously marked on the outside of these small packages, showing the net weight, measure and numerical count, the more I become convinced that Congress, in its wisdom, acted wisely in adding this amendment to the law.

After this amendment was proposed to the law, I made a pretty thorough examination of this question and found that there were many articles of food put up in packages so small that it would be almost, if not quite impossible, to state the quantity of the contents plainly on the outside of the package in terms of weight, measure, or numerical count, and if that was true, it would make the law "a dead letter" as to these small packages or containers.

This, in my judgment, being true I believe it is the duty of each State Food Commissioner and State Food Official, in the various States of the Union, to urge upon the legislatures of their respective states that this Section of the State Law should be amended and revised so as to substantially conform with the amendment to the National Food Law, as in only this way can the fullest co-operation be obtained between national and state food officials in the enforcement of our National and State Food Laws.

My reason for asserting this is that this Association has gone on record in favor of the fullest cooperation and unity of action between national and state food officials in the enforcement of all national and state food laws, and this uniformity and unity of action can only be secured by having the laws of the various states of the union, modeled after the national law so that cooperation, uniformity and unity of action can be secured.

In my judgment each state in the union, as well as the United States, should have a first class "Weights and Measure Law," covering all articles of commerce, whether food or not, and that these laws—state and national—should be enforced through a Department, or bureau, created for that purpose.

Illinois, the State I have the honor to represent, has a "Weight and Measure Law" that was enacted in 1845, and has been amended many times by our General Assembly since that time.

This law fixes the weight and measure of many articles of commerce in our State, and its enforcement is left to the State Sealer of weights and measures, but this State Law does not interfere, in the least in my judgment, with that provision of the State Food Law as to the "Net Weight and Measures" in foods, which was passed by our General Assembly in 1907, when our State Food Law was revised and modeled after our National Food Law so as to conform, as nearly as possibly, with the National Food Law, and in order that the State Food Department of Illinois might have as complete cooperation as possible, with the National Food officials in the enforcement of all national and state food laws in Illinois.

As before stated, the United States and every state in the union should, in my judgment, have "Net Weights and Measure Laws, embracing every article of commerce with, at least, the following provisions:

First. A comprehensive statute establishing standards for weights and measures.

Second, A statute, providing for a State Sealer of weights and measures. with sufficient assistance, and inspectors to cover the entire state and to enforce the weights and measure laws.

Third, A rigid law providing severe punishment for the use of false weights or measures, with strict provisions for sealing.

Fourth, A concise and comprehensive statute to punish the sale, or delivery, of a short weight or measure, of any product.

Fifth, A law making it a crime to sell, or deliver, a less quantity of anything than the purchaser orders.

Sixth, A law making it a crime to deliver gross weight or measure for net weight or measure, and requiring delivery of the full weight or measure of the commodity itself, ordered by the purchaser, without under any circumstances whatever, including the wrappings, or container.

In my judgment, the enforcement of this proposed national and state "weights and measure law" should not come under the provisions for enforcing national and state food laws, except where the law pertains to foods, but should come under a separate department, or bureau. And as to foods it should have concurrent jurisdiction in the enforcement of the law, pertaining to food, with that of the National and State Food Departments, for the reason that many, if not the greater number, of the articles coming under this proposed weight and measure law would not embrace articles of food, and for that reason food officials should not be hampered with the enforcement of these laws regulating all articles of commerce necessary to be regulated under a weight and measure law, except where the law pertains to foods, then each should have concurrent jurisdiction.

All the staple articles of food, such as flour, meal, sugar, coffee, tea, butter, milk, meats, crackers and confectionery on the markets in every state and territory in the union, when sold in bulk, would more properly come under this general law, as to weights and measures, and the Inspectors appointed, under this law, to look after its enforcement, would see to it that the law was enforced as to these articles of food, the same as to all other articles of commerce, properly coming under the provisions of a net weight and measure law, but in case the Inspectors in the National and State Food Department should decide it necessary to inspect or prosecute for violation they could do so.

When I consider the work that necessarily comes under the jurisdiction of the Illinois State Food Department, and the immense amount of work to be done by it, and that Illinois is located almost centrally in the union—that her broad prairies and fertile valleys produce the very best food, and dairy products—that she has the "father of waters" on her western boundary, the Great Lakes on the North—the Wabash on the east; the raging Ohio on the southeast, that nearly every acre of this broad empire are susceptible of cultivation; that she has more miles of railroads than any other state in the union, and that in addition to her rivers and lakes, to carry all this vast food products to the markets of the world; she has Chicago, as the great distributing point for all this vast food product—as well as for that of her sister states which surround her—that the soil of these states are as fertile and productive, and form that part of the United States commonly called the "Mississippi Valley"—a valley far richer than that of the famed "Valley of the Nile"—that Chicago has more cold storage plants than any other city in the world, and that, in addition to all this, Illinois has 17,000 retail groceries, 5,000 manufactories, milk condensaries and bottling plants—100,000 dairies, not counting the booths, restaurants and other places where foods are sold, and that these foods must go into the markets of the world, properly inspected and in a sanitary condition, and then consider Chicago being the great distributing point, for all these vast food products, and that Illinois has only eighteen Inspectors and ten Chemists to look after the inspection and analyses of all these vast food products. When I consider all this, I can see how necessary it is to economize our work in order that the greatest good to the human race may be accomplished, and in my judgment, it is much more necessary that the consumers of these vast food products shall have foods manufactured and sold under sanitary conditions, than it is to have the absolute net weight or measure of each article printed or stamped on the package, or container. The first propositions are those pertaining to life and health, and the second to the pocket book.



A. H. JONES,
State Food Commissioner of Illinois.

The population of the United States, as shown by our last census, is nearly 100,000,000 of people. All of this vast number can be fairly considered as purchasers of some commodity. If each of these were to suffer from even the daily loss of a mill, the tenth part of a cent, the amount would approximate thirty millions of dollars a year. Yet the investigations conducted by experts in all parts of the country; indicate that the average loss is many times greater than a mill each day to each inhabitant, and has been steadily on the increase for the last quarter of a century.

The first annual weights and measures conference held in 1905, was attended by only ten delegates. At the eighth conference last month in Washington, the attendance numbered several hundred including delegates from each of the states, the sealers of weights and measures of cities having more than 25,000 population, as well as visitors unofficially interested. Among these last were representatives of the Wholesale Grocers' Association, of scale manufacturers, of the freight Departments, of Railroads, of fruits and produce associations, and various other business exchanges. All of these organizations are interested in the standardization of the systems of weights and measures throughout the country.

An appropriation was made by Congress three years ago for an investigation of the weights and measures in use throughout the country. The results of this investigation showed that the evils of short weights and measures prevailed throughout the entire country, and were not restricted to any locality or to any class commodities. In every state, when actually measured, they found scales which were likely to weigh from one to five ounces short upon each pound, liquid measures in which a trifle over three quarts were measured as a gallon and yard sticks which varied between thirty-two and thirty-six inches.

The crusade against fraud in weights and measures has already begun, under the National Food Law. The Committee of National food officials, to draw up regulations, and prepare rulings, for the enforcement of the new Federal Weight and Measure Law, convened at New York, on the 9th day of this month, and the manufacturers, dealers and others interested, in the provisions of these regulations, will be heard.

Upon the proper interpretation of this

last provision in the law rests the real value of the law. The act provides that "a reasonable variation from the standard weight is permissible, provided this variation is, as often above, as below the weight or volume stated. This variation shall be determined by the food inspector from the changes in the humidity of the atmosphere, from the exposure of the package to evaporating or to absorption of moisture, or reasonable variations which attend the filing and weighing of packages." The Committee authorized to make the regulations, governed by this provision, includes representatives of the Secretary of Commerce, the Secretary of Agriculture and the Secretary of the Treasury.

The Secretary of Commerce, through the bureau of standards has the authority to determine the justice of the weights and measures used. The representatives of the Department of Agriculture must fix the measure of variations in the weights and measures of food stuffs according to Laboratory tests conducted by experts, upon the sample furnished for that purpose by the manufacturers of the various food products. The Treasury is represented because of the duties imposed upon the imported food stuffs, which come under the jurisdiction of the law, and also because, until the establishment of the bureau of standards under the Department of Commerce, the matters regarding weights and measures, were all under the direction of the Treasury Department.

The new law is designed primarily to protect the public from loss by insufficient weights and measures, but is not intended that any injustice shall be done to dealers and manufacturers.

Previous to the hearings in New York, on the 9th of this month, hearings were conducted in Washington, D. C. on the problem of the capacity of bottles and jars manufactured by the glass blowers, for the handling of liquid products. The discrepancies in these articles were a surprise to the members of the Committee, as they demonstrated that few of the bottles had a capacity for the contents they were supposed to carry. The thickness of the glass, the presence of the air bubbles, the quantity of glass taken up by the blower, and its heat, all enter into the problem of manufacturing bottles which will be uniform in their capacity.

There is no subject more closely in touch with the daily life of man, woman and child in the country, than that regarding weights and measures. While the people have had protection from menaces from every kind, they have as yet had no protection from short weights and measures, and their annual losses from this neglect are almost incredible. The investigations made regarding the high cost of living point clearly to the losses from this cause, and a crusade for protection from such loss is sweeping over the community in which the matter has been brought into public notice.

The movement for the establishment of protection for the public from short weights and measures include many things. It requires a sincere cooperation upon the part of the consumer, and the officials, who are charged with enforcing the laws which already have been passed.

I want to congratulate this Association upon the fact that when the food laws of the respective states have been questioned, by the fraudulent manufacturers, packers and dealers in adulterated and misbranded foods, and cases from the different states have been taken to the Supreme Courts, by these fraudulent manufacturers, packers and dealers, the court has almost universally upheld these laws—that the State, under its "police power" has full right and authority to enact and enforce them, as they are in the interests of public health, as well as the public purse, and as late as April 13th of this year 1913, the Supreme Court of Illinois, in the case of The People of the State of Illinois, defendant in error vs. W. T. Price plaintiff in error (See Volume 257, pages 587 to 595) has reaffirmed the police power of the state, and the power of the state to prohibit within its borders the sale of adulterated food, and that this power is not repugnant to the commerce clause of the Federal Constitution, but is a valid exercise of the police power of the state.

This I regard as one of the most important decisions ever rendered by our Supreme Court in favor of pure food laws, regulations and the police powers of the state to enact and enforce them, as it expressly holds that the pure food laws of Illinois do not violate Section 13 of Article 4 of the Constitution of the United States giving Congress the power to regulate Interstate Commerce, etc.

In conclusion, I would state that a false weight or measure, is a gross fraud upon the consuming public, and affects the pocket book of every citizen of the Republic—the same as fraudulent and misbranded foods affect the lives and health of the people.

It is the duty of the state to protect the citizen in each case, and in order to do this it is necessary to enact stringent laws preventing these frauds.

The State and National Food Officials should have concurrent jurisdiction with the weights and measures officials in the enforcement of the "Net Weights and Measures Laws" pertaining to foods but in my judgment there should be two separate departments, one a National Department, or Bureau, and a State Department, or Bureau for "weights and measures," with proper officials for their enforcement; and the other a National Food and Drug Department, or Bureau, and a State Food and Drug Department or Bureau for foods and drugs, with necessary officials to enforce the law, and each law giving the officials of the other department concurrent jurisdiction in the enforcement of all weights and measures pertaining to food or to be more specific, there should be two departments; one for the enforcement of the "Net Weights and Measures Laws" and the other for enforcing the "Food and Drug Laws" with concurrent jurisdiction as to "weights and measures" with reference to foods and drugs.

The Chairman: The discussion on this subject, according to program, was to have been opened by the Hon. James Foust, of Pennsylvania. Mr. Foust is not here with us, but Dr. Frear of Pennsylvania is here, and he will read his paper.

The Address.

THE testing of the weights and measures used in dispensing foods may very well be assigned to some officer, state or municipal, other than the food commissioner. It may thus form a part of a more general service affecting the sale of a wide range of commodities, as well as that of foods and drinks.

It is otherwise with the determination of the net weight or volume of package foods, and the fill of canned or bottled goods. Deception as to the quantity of a food article, as well as respecting its kind or quality, has heretofore been considered an act of misbranding. To assign the test upon this point to a separate officer, is contrary to the dictates of economy of service, tends to harass the merchant with an increased number of visitations and regulations without corresponding increase of benefit to the consumer, and to subject him to penalties of different degree for offenses of similar kind. There can be no serious difficult in maintaining in the food commissioners' laboratories the same standards of weight and volume that are prescribed by a bureau of standards for use in commerce; so there is no good ground for the fear that the net weight or volume of foods sold shall be judged by standards different from those prescribed to the food packers.

It is not, however, what we judge, but what the Legislature determines, that fixes the assignment of such duties, and these honorable bodies are not always moved to their decisions by considerations such as I have mentioned.

The Chairman: According to the program, we were to have a further discussion of this subject by Mr. J. O. Emery of Wisconsin. Mr. Emery, however, is absent, and it will be open to the convention for further discussion.

Mr. Flanders, of New York: There are some principles involved in the case that amuse me very much, and I would like to hear what was involved in that case (referring to Mr. Jones' paper).

The Chairman: Dr. Bryan has gone out—he is not in the hall.

Mr. Flanders: I will tell you the point. He said that the Supreme Court of Illinois upheld the laws of the State prohibiting the using of certain substances to be used in can goods, to be used in your own household. I would like to know what was involved in the case itself. The National Government cannot have anything to do with it until it becomes interstate, and when you come to prohibiting persons using something in their own homes—that is another question.

The Chairman: Is there anyone in the audience that can answer Dr. Flanders? There seems to be no further discussion on this subject and we will,

therefore, pass to the next thing on the program. We will now hear Dr. Charles Caspari, Jr., of Maryland, on the subject: "Should the Drug Stocks of Dispensing Physicians be Inspected? If so, what ways and means might be legally adopted to carry out such inspection?"

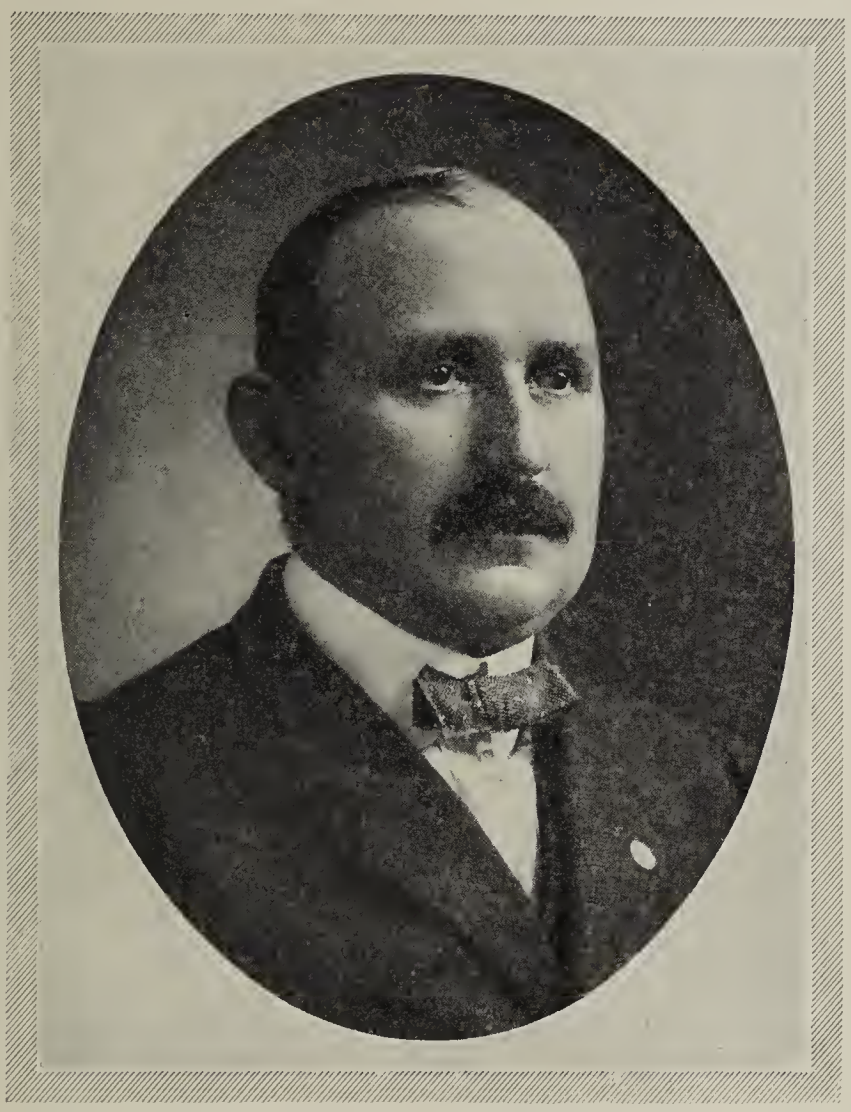
Dr. Charles Caspari, Jr., Maryland: Mr. Chairman and Gentlemen: I perhaps owe an apology to this Association for not having prepared a definite paper on this subject. In the first place, the notice to prepare such a paper came to me very late, and my duties have been very heavy, both in the Bureau and at the College, and secondly, when I read the question, I was struck at once by its total impracticability, and all that I could say in connection with it would be negative. I do not see how any law could be framed to authorize the inspection of drug stocks of dispensing physicians—that is, confining it to the fact that the physicians dispense their own medicines. This does not refer to conditions where physicians are owners or interested in drug stores. In the latter case, they would, of course, come under the general rule or law, but a physician who dispenses his own medicines is in an entirely different position. He surely has the right to dispense or to give to his patients whatever he pleases. If he decides to dispense a certain solution, he has the right to do so. He does not sell these medicines to his patients; he gives them to him as part of the treatment, and the patient does not ask for them under any name. I consulted attorneys about this matter, and they were strong in their opinion that a law of that kind could not be enforced. The dispensing physician occupies a unique position. What we can do and should do is to inspect the products of the house, or those houses which supply these prescriptions. When these houses make it a business to sell to a physician such drugs as he may order, such drugs may be subject to inspection, if ordered under an official title or otherwise, but when they have once entered the possession of the physician, they are his private property with which he can undoubtedly do as he pleases. I was so impressed with the stability to enforce a law of that kind, that it occurred to me as absolutely useless to discuss this subject. I think that the more thought that we give to this matter, the more we will realize that it is not in our power to inspect the product after it has reached the physician's possession, and it is his private property, no more than you can inspect an article that I buy and have at home. I think that the lawyers will realize that—and I think that the position is so entirely different from that of the pharmacists. When a physician writes a prescription, then, of course, he has the right to expect that that drug shall be of full pharmacopoeia strength.

Dr. Fricke, Missouri: Suppose that prescription was filled from a substandard?

Dr. Caspari: Well, in a majority of cases those are not permitted by the laws—whether that is carried out, I am unable to say. I think that these few remarks are about all I could say. I would be very glad if anyone present could and would offer a different argument.

Dr. Fricke: Could it be possible to enact a law in the State making it obligatory for a dispensing physician to write a prescription for his patients? There are several states taking that under consideration.

Dr. Caspari: The physician is licensed to practice medicine undoubtedly by a proper board of medical examiners in his State, and having that right to practice medicine, it carries with it the right to give his patients such medicines as he desires. I do not think any law would ever be constitutional.



HON. JAMES FOUST OF PENNSYLVANIA.

Mr. Tilford, Kansas: The last legislature in Kansas incorporated a provision in the pharmacy bill, which provides for the inspection of the doctor's stock, the same as a drug store, but it has not yet been put into effect; so we don't know yet whether there will be any contest over it.

The Chairman: Gentlemen, neither one of the gentlemen—Mr. R. B. Fitz-Randolph, of New Jersey, or Hon. Guy G. Frary, of South Dakota, whose names appear on the program, are present, to participate in the discussion of this subject; so I will ask any of the members present for a discussion on this question.

Mr. Tilford: I wanted to ask Dr. Caspari a question. Last night he spoke of the interstate shipment of drug products below the required standard of strength, providing the statement is made on the label as to the strength of the product. The question I wanted to ask him was—he has taken the position, I presume, that most of you do—at least, we do in Kansas, because we have no provision in our law providing for the shipment of these drug products. I wanted to ask, if it wouldn't be wise to incorporate, in or make a provision that the drug product can vary in the non-essential constituents. In other words, if the drug product does conform with the essential constituents, it could vary as to the non-essential constituents. For this reason, a great many manufacturers in making their products according to the U. S. P. standard find it advisable to use a different instrument to hold the constituents, and yet not having them conform entirely with the U. S. P. standard in that respect.

Dr. Caspari: If I get the sense of Mr. Tilford's question correctly—it is assumed that the particular menstrum directed in the pharmacopoeia, was selected for its special fitness for the extracting of the drug, and if that is an error, it can be remedied, and is remedied from time to time in the revision of the pharmacopoeia. I think it opens the door to fraud, if such be contemplated. A person might use an alcoholic menstrum of half-alcoholic strength, in order to cheapen it. I should say that no variation of the class should be permissible.

Mr. Tilford: Is it not a fact that some of the pharmaceutical houses make some of their preparations by different means than required by the U. S. P., and yet they get the same results, in an official product?

Dr. Caspari: Yes, sir; that is true, yet they have found that with those modified conditions very often the preparation does not keep as well. I can see no good reason at all why the manufactureres should not adhere to the pharmacopoeia except the "modus operandi." These are modifications that we cannot permit—that is, if the pharmacopoeia is to be our guide. It opens up a large field of inquiry, and is, of course, a very large item for the manufacturers of pharmaceutical products, but a law that is made for the government of the retail pharmacist should bear equally upon the large manufacturer, except possibly in the mode of operation.

The Chairman: The next order of business, according to program will be the subject of "Milk Supply of Cities and Towns," by Dr. B. H. Rawl, Bureau of Animal Industry, Department of Agriculture, of Washington, D. C.



Milk Supply of Cities and Towns



By B. H. Rawl—Chief of the Dairy Division Bureau of Animal Industry

THIS subject has been entered into today, and I wondered if most of us are willing to give it very much more attention at this time. I don't mean to imply that the subject is not sufficiently large, or important as to warrant as much attention as could possibly be given it, for undoubtedly, the question dealing with the milk supply is one of the most important and one of the most thoroughly complicated questions of any food problem that confronts us today. It is one that is not fully appreciated by our people and even part of our officials, for true it is that many reputable physicians are negligent as to the importance of this particular question. There are two general phases of the milk proposition. One, we may designate, as the strictly police side. The police work that I refer to is of such a character as is used in prosecuting dishonesty and punishing those that are unwilling to be taught. We have two classes of people to deal with in this matter. One class is the producer who is the dishonest man and who does not care anything about the responsibility of the business. I believe that the average consumer is not maliciously bad, but he is what we may term maliciously ignorant of what is involved. I do not care to turn to the police side of the question, but I will call attention to, and consider in connection with that, what we may term the educational side of the question. This educational work is divided into three important divisions. First, we have the production of the product, and in the production, we will, for convenience, class all operations in the handling and supplying of the product to the consumer. Second, is the inspection or control. The control which makes the consumer feel sure that he is getting a product that is safe for him to consume. And third, is the consumer's responsibility in this matter. That is not a very distinct classification, but it will simplify the question, as I have it in mind. The production work has been under investigation for a good many years. I say a good many years, but I don't mean a century, but for at least ten or a dozen years we have had considerable investigations of the handling and producing of the milk supply, and while there is an enormous field yet to be covered in connection with the production, still we know enough to be able to produce an article that is reasonably safe for consumption, and handled in a way that it may reach the consumer in a condition that it is safe for him to use. So much for that side of the question. The inspection work—and the "inspection" is not a very good term in this connection. I am applying the word rather in the sense of the teacher rather than a police officer. The inspection work is very inadequate, but it has been under investigation for a number of years also, and I do not believe that we are unwarranted in saying that if we have the funds and the facilities that we know enough to organize a system of inspection that will be reasonably safe in protecting the consumer against this product. Perhaps the point in this connection in which we are the weakest is the lack of sufficiently harmonizing the facilities that are made available, and it but emphasizes what has already been suggested here at this meeting—the great need of harmonious action. Here, we have possibly a million farms, and we must take this inspection back to the farms, because that is where the trouble begins, and we must go back to the source of the trouble if we ever expect to correct it. I don't know whether we have a million farms producing milk for cities, but that is not very far out of the way. To reach these farms systematically from month to month by men who have first obtained the confidence of the owners and operators of these farms. I say, to maintain a system whereby we can keep in touch with this vast army of farms means a great deal of work. It means that every facility that can be utilized must be utilized. It means, in my judgment, that if we ever deal with this subject, we have got to utilize every facility possible. I believe that wherever a facility is able to maintain a food and milk inspection, that it is to the interest of the city authorities and food authorities to do everything possible to encourage them to utilize their facilities. If we had ten cities in a state fully able to make these inspections, and bring about a uniformity between one state and another, then we would settle for life, an enormous amount of work between these cities in connection with the smaller towns that have no departments to handle this work. I, however, do not wish to dwell at length upon this point further than to emphasize this one thing—that what we want and what we need is more inspection of a proper character—of an educational character. I wish to pass on to another phase of the question, which to my mind is the most important. We can produce milk. In our country, we have carried on an experiment, with a daily bacteriological analysis. We have had an average count per annum of ten to twelve thousand per day, counting the bacteria from each milking almost a year. We have had no expensive plant, and this plant cost about fifteen hundred dollars to equip. The milk house cost $400; it cost around two thousand dollars, and it accommodates twenty-five or thirty cows. We can produce this product, we can produce it regularly, and we can do something more. We can go to the average intelligent farmer, and we can get him to produce it, providing we will do one thing which we have not yet today thought of—that is, to give him a little consideration for the extra expense that is absolutely necessary to bring about these results. This is the phase of the question that confronts us—that is, what is the consumer willing to do to meet this proposition, and help to carry this burden. I have heard standards made all over the country, bacteria counts and score cards, all of which are good, more or less, but we have heard mighty few men come out and say—men of authority—"To you, Mr. Consumer, you cannot build a barn that is properly lighted, ventilated and properly equipped for less money than you can milk the cows under a shed, out by the fence. You cannot use that equipment with the same amount of economy that you can do it under that old shed. It takes more labor and more money." It is unreasonable. You don't expect the manufacturers of food to bear the burden of such improvements you wish them to make. You know they have the facilities; we want you to help. You know that they have the facilities to make the consumer pay the cost in the long run, and under ordinary conditions. Let us consider this question here. If it does cost more—and it is simple that it does—it costs more money, the consumer must be taught that it costs more money, and he must be taught that if he desires the good will and the good milk, that he must not be willing to take the milk that he can buy for a half-cent cheaper. I know millionaires whose homes are supplied with milk that costs eight cents a quart, instead of paying ten cents for the good pure milk. There are economic questions in connection with the production of the milk. We have been attempting to make the animals pay the whole thing. What are we going to ask the consumer to pay. I wish we could tell you. We should ask him to pay a price that would be fair and reasonable both to himself and to the producer, but I cannot say what that price should be. There is to be the work and we need to do it. We need to ascertain what would be a fair consideration for the improvements that we are to employ, and then whether we put the entire burden upon the consumer or put it between the consumer and the producer. First, we should have more inspection—and that is the consumer's work largely. He will get it when he asks for it and helps to pay for it. With more knowledge of this subject on the part of the consumers we will get better inspection. Prosecuting when necessary, and only when necessary, we will get in that connection, and with this inspection, an improvement, and a material reduction in cost, and that should be supplemented in part by the consumer, by buying a good, clean product, rather than something that is unknown. We hope, in the Department of Agriculture, to distribute more than



Milk Supply of Cities and Towns



By Hubert F. Potter—Dairy and Food Commissioner of Connecticuit

Mr. H. F. Potter, of Connecticut: Gentlemen, it seems almost impossible for me to add anything to what Doctor Rawl has already said to you on this subject. I can substantiate everything that he has said. I wish to emphasize, if possible, a little more the fact that the public must pay for these improved food products. If the people wish milk and cream and butter that is made under more approved sanitary rules and conditions, they must expect to pay for it. I won't enlarge any more on that point. I will simply state some of my experiences as Commissioner in Connecticut, with reference to the inspection of dairies and of the milk product. We have inspected for the last three or four years something like three thousand dairies each year. We have attempted this work as an educational feature, and there has been very few prosecutions brought. I think not more than twenty-two or twenty-three prosecutions have been brought for violations of the law with reference to sanitation during the last four years. I believe that there has only been one prosecution brought in the last six months, and my inspectors' reports show that the conditions have very materially improved. We are having in Connecticut considerable trouble with reference to the sale of adulterated milk. We have a system there of calling upon the local town health officers to occasionally take samples of milk that is being disposed of to the consumer, and whenever any adulterated milk is found by these local health officers, it is reported to the Food Commissioners. The case is then followed up, and if adulterated milk is found again, the cases are prosecuted. I think there have been something like 100 cases prosecuted of that nature during the past year. It would look from my report which was issued a few months ago that the sale of adulterated milk has very much increased in Connecticut, but I do not think this is the fact, but we have been better able to discover the party who is selling adulterated milk by the system we have arranged by calling upon the local health officers. I wish I could picture to you some of the conditions which the inspection force in Connecticut have found in the dairy stables. Some of them so dirty that not one of you would care to eat or drink the product produced from those dairies, but the large number of the dairies we find in fairly good condition, and these dairies that are in this unsanitary condition are gradually being cleaned up. I have one picture to show you (Mr. Potter exhibits to the convention picture referred to). That is of a dairy in the town of Meriden, which was so unsanitary that I deemed it necessary to send them an order notifying them to clean up certain unsanitary conditions, and giving them thirty days in which to do it. When the thirty days was up, very little improvement was made. I called at the dairy myself, and talked with the old gentleman, who was one of the old-fashioned farmers, and he thought he knew how to run his dairy as well as we did. I got very little satisfaction. I called upon the local health officer and asked him to call at this farm in the afternoon with the idea of being called upon as a witness. In the afternoon he called upon this farm, and found this man and his hired man working to clean up the place and he reported the same to me the following morning. Three days later I went there and took samples of milk from this dairy, and had them examined by our state bacteriologist. There were two samples of milk taken and kept about twelve hours, and it was examined and there were two thousand bacteria in one sample and three thousand in the other. I think that that will show conclusively that there was good work done at that dairy. I know the hour is getting late, and although I would like to talk to you gentlemen further, I shall leave this subject.

Dr. W. P. Cutler, Missouri: There has been growing in my mind the belief that it is up to the consumer to get good clean milk, and to be made pay for it. In our state ninety per cent of it comes from Southern Illinois, and that makes it entirely under Federal jurisdiction. A few days ago the Illinois Association made a demand of the distributors, and demanded that the consumers pay more for their milk. They were paying $1.15 per hundred. The milk distributors in St. Louis said that they could not pay more than that because the consumer has never paid more than eight cents a quart, and won't do it. The result was that the producer in Illinois said that he would not ship the milk. If the consumer in St. Louis could be shown that it is necessary because of the price of feed to produce milk and that milk costs very much more to produce, in order for them to get milk, it seems to me that the consumer would realize the necessity for a higher price. One distributor disposed of fifteen thousand quarts a day. They say it costs him three cents a quart to distribute it, and the most they can get for it is eight cents. It is a physical impossibility to get milk and sell it at $1.15, and make a living, and it is certainly impossible to make any money out of it. There are a few people in St. Louis who are willing to pay fifteen cents for certified milk. They have been educated by physicians to know the value of good, pure milk, and these physicians have insisted to their patrons that they must pay fifteen cents a quart and they do it. I am of the opinion that no man can produce and distribute milk for less than ten cents a quart, and no man can make any money at it for less than twelve and a half cents a quart. The people should be shown that that milk is worth twelve and a half cents a quart, at least. If the consumer would pay more for milk, it would cost them less for inspection. We go to a barn and say to the owner, "Your dairy has a count of less than twenty." He says, "I would like to sell better milk, and have a better barn, and I would like to have concrete floors, and I would like to have lots of windows and better cows, but I simply cannot do it because I do not get money enough for my milk." I believe that it is up to the inspection department of each state as well as to the United States to show to the people who insist upon clean milk and to these ladies who are continually agitating the question of pure milk that if they expect pure, clean milk they must pay for it and help bear the burden. A lady asked me to take her about with me one time to see the barns, and I took her. She saw some, and she seemed to be very much disgusted with them. She expected to find the barns fitted up like a parlor. She was impractical. It was impossible for her to see but one side of the question. She didn't realize that that sort of a barn would be impossible for a man to milk cows in. The milk man feels it impossible to produce milk in the way in which he ought to and the way in which it ought to be produced to please the ladies who are agitating the question and make a living. He realizes that if he is going to get a cow to produce the right sort of milk it is going to cost some money. You cannot buy a cow—a milch cow—in Missouri today. The people that buy milk must be shown that if they want good milk, and the right kind of milk, they must pay the price for it, and I believe that it is up to the food and dairy officials to show to the people that they must look to the other side and say we must have some more money. A lady will pay a higher price for other foods, but if one lady tells another that she is

(Continued from page 238.)

ever before the literature to make him understand it. We had hopes to carry on this investigation at a half dozen or more places, taking in an exact study of something like twenty dairies in each community to determine as nearly as possible what we should do. If we, make the consumer realize his whole responsibility of this matter, and that when he wants good milk he will get it, and that he will never get it until he does want it, and is ready to do his just and legitimate part towards it, then we will have accomplished a great good.

The Chairman: Gentlemen, Mr. H. F. Potter, of Connecticut, will open further discussion on this subject of milk supply of cities ond towns.

getting milk one cent cheaper from her milkman, that lady will immediately drop her own man and take it from the other man that sells it one cent cheaper. There is one thing that is dear to a lady's heart, and that is a bargain. It is impossible to get a bargain in food stuff. When it is a bargain, it is not fit to have. I was eating dinner at a friend's house one day and she very proudly remarked that she was paying only twenty-five cents per pound for that butter we were using. I said that I was suspicious, so I took a piece of it and built a fire over it. I told her after this experiment that she was not using butter, that it was oleomargarine. Her husband immediately told her not to buy any of it any more. She asked me why I wanted to tell her that it was not butter, that they had been using it right along. So a lady wants cheap milk, because she thinks that milk is milk, whether it has refuse in it or the fifth of the barn yard or not.

Mr. Abbott: I want to ask Dr. Rawl a question. You spoke of having a dairy in operation; is it possible under your plan to determine the cost of your production.

Dr. Rawl: It is not feasible in connection with the plant that we are operating because we are carrying on really an experimental plant, and in connection with the production of this milk we are carrying on a lot of other experiments; we make a study of actual cost of production and absolute sanitation. The idea I would have in these experiments was to take a number of farms and select them in such a way as to get this information. I believe that study ought to be made to be of value under actual commercial practice.

Mr. Abbott: What city is that in?

Dr. Rawl: In Washington.

Mr. Abbott: What is the retail price of milk in Washington?

Dr. Rawl: Well, I do not know whether I could give it to you exactly. Around ten cents. Our milk is not sold; it is used for laboratory purposes and experimental purposes. The price is around ten cents for the better grades of milk, and some of them sell for nine cents.

Mr. Abbott: Is there any dairy in the vinicity of Washington that makes a specialty of clean milk and gets a higher price than the market price?

Dr. Rawl: Yes, sir; there is a dairy located in the vinicity of Baltimore.

Mr. Abbott: Do they really produce a good, clean milk?

Dr. Rawl: At this particular plant they produce a very high class of milk. A good share of this milk is sold at Washington for a good price—at, I think, 15 cents.

Mr. Abbott: Do they have their own dairies?

Dr. Rawl: In some cases and in some not. I am not prepared to say whether they have other production plants or not. I am not prepared to say whether all of their supplies are good of these two plants. From my own observation I judge them to be producing a very high grade of milk. This man I spoke of is one of the foremost men we have in the production of high grade goods.

Mr. Abbott: I want to know from Dr. Cutler what is the general market price in Missouri?

Dr. Cutler: That would be difficult to say. All certified milk is sold at 15 cents in Kansas City and St. Louis, and the average price in country towns is six or seven cents. The average price in Missouri the whole year around is seven cents, I should say.

Mr. Abbott: Do you know what the producer gets wholesale for his milk?

Dr. Cutler: Yes, sir; thirty-five cents per gallon. They bottle it themselves, and pay the freight on it to St. Louis.

Mr. Abbott: Do they seem to be making any money out of it?

Dr. Cutler: Yes, sir; there is one man in Missouri who milks 52 cows of very high grade. He tells me he makes as much as ten dollars net per cow per month and sells only certified milk.

Mr. Abbott: Is there any trouble for those people to sell that milk at that price?

Dr. Cutler: No, sir; the demand is larger than the supply.

Mr. Abbott: We had a unique experience in Texas I wanted to call your attention to. In Austin, Texas, there was a man named Franklin who built a little shed, a concrete floor and barn, and had plenty of water and a little boiler to have steam. It didn't cost much; he did the work himself, and he and his wife attended to the plant themselves, and they had a negro to deliver the milk and take care of the cows outside of the milking barns. He had seven cows, and he got about twenty gallons a day, and he got the nice price of eighty cents per gallon for this milk. Eighty cents per gallon on twenty gallons shows you what he got. You can verify that by coming down to Austin. I want to say that my observation was that with that little dairy, that it didn't cost so much more to produce clean milk than to produce dirty milk. He had a concrete barn floor, and it was painted, and he had a nice refrigerator box, the barn was clean, and the cattle did not stay in there except while he was milking, but there were enough people in Austin, a city of thirty thousand people, to pay eighty cents per gallon for twenty gallons a day. The regular price in Austin is down to about forty cents. We condemned a barn some time ago, the owner built a good cow barn, and he is selling milk now for fifty cents a gallon. I went to St. Louis this spring a year ago to study the milk production there with especial reference to the cost of production and the success they are making of their plants financially. I got into the city and met a dairyman who is a distributor in the city. I would not like to call his name. He was very courteous to me and he said, "I will go with you tomorrow morning out to my dairy over in Illinois"; so we went to his dairy. At that dairy he was milking about eighty or ninety cows. He had a very good barn, concrete floor and well, and well-lighted, and he had a good barn for storing his feed. He was buying feed—cotton seed meal and bran—and he bought corn to put in his silos. He sold his milk from that point for thirty-two cents a gallon, so he told me. He had a good herd of cows, and kept the record of each cow, and he showed me his figures and his books, and all of his private papers, and that is why I did not care to give you his name, although he might not object. He showed me those books for two years, giving me the cost of production and supervision and the cost of everything, and showed me what he received for his milk at thirty-two cents per gallon, and on eighty cows; from eighty-five to ninety cows he had a net profit every year of close to ten thousand dollars. I have no reason to believe that he was falsifying his figures, and it does seem to me that our people could make something in the dairy business. I presume that that man had made more money than the average man, although I went to several other places that showed up pretty well.

Dr. Cutler: Was that Mr. Spees?

Mr. Abbott: Yes, sir.

Dr. Cutler: Well, I know him, and he sells that milk to himself; he dispenses it himself.

Mr. Abbott: Our milk people do not seem to want to produce the clean goods, and if they do, then they won't probably generally realize seriously the importance of the public being willing to pay for a good article.

The Chairman: Dr. Frear, of Pennsylvania, has asked leave to say a few words to you gentlemen.

Dr. William Frear, of Pennsylvania: Gentlemen, I must ask the indulgence of the association to present to you at this time the report of Section "B," the report of the Committee on Bacteriological Methods. I am instructed by the section to report this recommendation, that the report be received as a report of progress; that it be printed for distribution to the members of the association, so that those engaged in bacteriological work who are members of our association may have an opportunity for careful examination of the recommendations and that they be requested to present to the chairman of the committee, Dr. Abbott, such criticisms and objections as may occur to them. Owing to the fact that so small a number of our bacteriologists are here at this meeting, we think that it would be unwise at this time to take positive action on a matter so fundamental as this.

Upon motion, duly seconded, the report was duly adopted and put on file and the chairman so announced.

Mr. Abbott: Some members on the Committee on Resolutions suggested that if anyone had some resolutions that they turn them into Mr. Wallis or Dr. Caspari or myself and turn them in to us some time early in the morning.

The Chairman: The chair has not overlooked the fact that we have a special order on for tonight, but by agreement of the parties it will be taken up tomorrow.

I am asked to announce that the meeting will be here in this room tomorrow morning at ten o'clock. The first paper at this meeting will be the paper of Mr. Wallis that was left over from tonight. We will now adjourn until ten o'clock tomorrow morning.

Adjournment.



The Fourth Day—June 19



MORNING SESSION

ADDRESS OF JAMES H. WALLIS
ADDRESS OF GEORGE L. FLANDERS
ADDRESS OF CHARLES D. WOODS

Editing Questions and Answers

BY JAMES H. WALLIS—STATE FOOD, DAIRY AND SANITARY COMMISSIONER OF IDAHO

A NUMBER of the states fail to be represented in the analysis made of the answers received to the twelve questions propounded on matters affecting our work. I regret this very much, because of the additional value such would have been in arriving at the conclusions set forth in this paper. Among the states whose valuable experience we would have been pleased to have had are Pennsylvania, Wisconsin, Rhode Island, Massachusetts, Maryland, North Carolina and Georgia. Still, it is a source of much encouragement to know there was such a hearty response, and I most earnestly recommend that this number continue to be a feature of our future conventions, as gradually it will become one of the valuable aids to uniformity of methods and efficiency of service in our work.

As a result of the analysis made from the responses received, I have formulated conclusions in the form of short affirmative statements for consideration during the discussion to follow this paper.

FIRST.

The first of the twelve questions propounded to the officials having the enforcement of the food, drug and dairy laws throughout the United States was the following:

"Under what conditions should a food product be classed as adulterated?"

To this question most of the commissioners agreed with the definition in the National Food and Drugs Act, which definition has been embodied in the food and drug laws of most of the states. However, one or two of the states present some peculiar situations. For instance, our worthy president, Commissioner Davies, of the State of Washington, lays down the proposition that "an adulterated product may be but is not necessarily illegal." He says: "A product should be classed as adulterated when some inferior but possibly wholesome material is mixed with a high grade material in the preparation of some food"; and that "unless any of the ingredients be harmful and the package is properly labeled, such an adulteration must be classed as legal." Commissioner Winkjer of Minnesota practically takes the same ground. He says: "There are many conditions under which a food product may be classed adulterated, some of which are illogical because of standards which have been adopted by law or delegated authority or no authority save that assumed by officials in which they conceive to be their duty to the public. In illustration, milk is by statute deemed to be adulterated if it contain less than three and one-fourth per cent of milk fat. It frequently happens that milk drawn from cows will not reach that standard. It may have all of the other food values, but if it is deficient in that one element (commercial value), it is classed an unlawful product, and the distributor, however honest he may be, is penalized by selling an adulterated food. Many other instances could be cited." Commissioner Barnard of Indiana, however, says: "I cannot conceive of a food produce which is adulterated but what is illegal," to which Commissioner Ladd of North Dakota agrees by saying, "Of course the sale of all products which are adulterated would be illegal." Eliminating milk, we think this is the safe ground to take, and yet why eliminate milk? Is not the butter fat standard the most equitable standard in determining the true value of this product? If it frequently happens that milk drawn from cows will not reach the standard set, why encourage the use of such animals for furnishing commercial milk? Commissioner Winkler says "many more instances" besides milk "could be cited." It certainly would be interesting to know what they are.

SECOND.

"Under what conditions should a food product be classed as misbranded?"

Practically all the states have agreed that the definition set out in the National Food and Drugs Act covers this question. Still, Oklahoma comes forward with an additional definition, which we consider highly meritorious and worthy of being adopted in all our states. It is as follows: "When by admissions in very small type, or omission altogether, the manufacturer seeks to deceive the purchaser in regard to artificial colors, preservatives or any other substance or substances which may be packed with, but which are in no way a part of the food product itself." In view of the fact that this dishonest practice is growing, we believe the suggestion offered is apropos, although it is true that many of the food officials and some of the courts hold that such labeling is a misbranding, even under the general misbranding clause of the laws which follow the National Act.

THIRD.

"Under what conditions should a food product be classed as illegal?"

We have already partly discussed this question under paragraph 1. California says: "Whenever it violates any of the provisions of the Food Act." South Dakota: "Whenever it fails to comply with the law regarding adulteration, misbranding or sanitation or such rules and regulations authorized." Dr. Woodward of the District of Columbia, with many other commissioners, says: "Whenever it is adulterated or misbranded," and Iowa adds, "or is prohibited." Utah adds still further, "or if deception is resorted to in aiding in its sale or distribution," while Ohio suggests, "or, if wholesome, anything has been added to it that renders it less valuable as a food product." We might here inquire, what about the addition of gums and starch to ice cream, and many other cases with which we are all familiar?

FOURTH.

"What is the purpose of that clause of the Federal law (and some state laws) requiring a declaration on the label of the presence of morphine, opium, cocaine, chloroform, acetanilid, etc., in foods?"

To this question most of the states reply: "I don't know," or "I don't see the purpose." Even the Department of Agriculture admits "the purpose is not quite clear," while Maine says, "There is no purpose in the law requiring this declaration." Indiana, however, suggests, "If the declaration were not required, unscrupulous dealers could readily sell narcotics under a food label," while North Dakota asserts, "There are products at times used for foods where cocaine and like drugs have been used." "Among these products," says Texas, "are beverages, to which morphine, opium, cocaine, acetanilid, etc., might be added." Mississippi also says it is "primarily for beverages." Kansas and Virginia both venture that the declaration is required probably for the purpose of preventing the formation of the habit of using these drugs. Iowa thinks it has very little application to foods, and adds "the drugs listed in the clause referred to are not legitimate ingredients in any food product." "If



John A Hughes.
Chas. J. Tressler.
R. M. Allen.
J. O. LaBach.
F. E. Erickson.
M. E. Jaffa.
E. H. Billingsley.
Herman Harms.
Dr. Carl L. Alsberg.
Sanford O. Dinsmore.
R. F. Kolb.
J. S. Abbott.
Dr. William Frear.
Dr. William P. Cutler.

Charles E. Jaques.
Wyatt W. Randall.
W. C. Kirk.
C. E. M. Newton.
Henry D. Holton.
R. E. Rose.
John W. McFarlin.
H. B. Meyers.
Orville D. LaDow.
George B. Taylor.
George P. McCabe.
R. E. Stallings.
H. C. Smith.
Levi Cooke.

Delegates and Visitors

AT THE

Seventeenth Annual Convention

MOBILE, ALA. JUNE 16-20, 1913

Willard Hansen.
E. F. Ladd.
W. J. McGee.
Walter Jeffry Carlin.
W. M. Allen.
Joel G. Winkjer.
Lucius P. Brown.
S. E. Strode.
A. W. Bruner.
Tom H. Johnson.
Benjamin F. Dayman.
Charles D. Woods.
W. F. King.
B. B. Ross.

F. L. Shannon.
R. E. Doolittle.
James W. Helme.
Dr. T. J. Bryan.
W. B. Barney.
William F. Hand.
L. M. Tolman.
Charles Wesley Dunn.
J. F. Tilford.
Hubert F. Potter.
F. H. Fricke.
L. S. Dow.
J. D. Miller.
G. F. Mason.

any preparation contained morphine, opium, etc., it would not, in my opinion, be called a food," says Dr. Jaffa of California. Florida ventures the conclusion, "to prevent fatal doses of these ingredients being administered," remarking that the laws not only require a statement of the presence of but also the amount of the drugs enumerated. In this Dr. Brown of Tennessee concurs by saying, "It is for the purpose of warning consumers as to the presence of these poisons in order that they may avoid overdose." Still, an argument that might be successfully used against this conclusion is, that very few laymen know what a poisonous dose of these drugs is; possibly very few of the executives having the enforcement of this law really know what quantity of different poisons constitute a fatal dose. "But for the clause referred to," says Dr. Woodward of the District of Columbia. "one might put upon the market, under some fanciful name, a food intended to relieve the craving for morphine and make that food accomplish all he claimed for it by introducing a sufficient quantity of morphine into it;" while Dr. Barnard of Indiana says, "If the declaration were not required, unscrupulous dealers could readily sell narcotics under a food label." Minnesota gives as a reason that the statement is wisely required in foods for the purpose of restricting the use of harmful drugs in such products as confectionery and in other products as a means for the surreptitious distribution of habit-forming substances." Other food officials hold that foods containing harmful drugs are adulterated under that clause of the law "which contains any added poisonous or deleterious ingredient which may render it injurious to health."

FIFTH.

"Is the manufacture and sale of terpeneless extracts increasing or decreasing in your state?"

To this question nine states answer that such extracts are on the increase; six answer that the sale is decreasing; while a number of states, including New York, Virginia and Florida, say they cannot tell. Utah says "terpeneless extracts are a thing of the past" in that state. In Colorado the sale of "terpeneless extract of lemon is prohibited" by specific statute, and all such extracts must contain at least 5 per cent lemon oil." Iowa writes that the sale of terpeneless extracts in that state is increasing, due to the fact they are being used as a beverage in dry territory." Florida says "it is a matter of little importance and unduly magnified." While Tennessee also treats the subject with similar indifference by saying, "This is a matter of such small consequence, I have paid no attention to it." Both of these latter statements leads one to wonder what motive induced Colorado to pass a law prohibiting its sale, and also at the significant statement of Dr. Ladd of North Dakota, to the effect that "there has been a large decrease in the manufacture and sale of terpeneless lemon extract since our food law went into effect." Dr. Barnard of Indiana also says, "Terpeneless extracts are not so commonly sold now as some years ago." Why? There must be some good reason. Would it not be a good idea to follow Colorado's example and prohibit the sale of terpeneless extracts by specific statutory provision and save the food officials much valuable time?

SIXTH.

"To what extent do you rely on the standards and definitions promulgated by the Secretary of Agriculture in passing on the legal or illegal character of food products?"

The answers to this question have developed a most profitable discussion, and one concerning which this convention can well afford to take some definite action. Fully two-thirds of the states answer in substance as follows: "By statute, all the standards and definitions promulgated by the Secretary of Agriculture are adopted by our state for the enforcement of our food and drug law, and we adhere to them closely in passing on the legal or illegal character of such products." In other words, the commissioners of these states are compelled by law to follow these standards and definitions, while any standard they might arbitrarily adopt in conflict would be peremptorily set aside by any court of competent jurisdiction if contested. The solicitor of the Department of Agriculture, answering for and in behalf of the Secretary, writes us: "These standards and definitions are simply statements as to what the Department conceives to be the best information on the articles therein defined. They represent the consensus of opinion of the trade and of the people generally as to what the articles named therein should be." I have always thought that in justice to those of us who desire to impart a consistent administration of the food and drug laws that we should not be left in uncertainty with regard to these standards and definitions as we sometimes are. At the Denver Convention of this association, it was agreed by resolution that we should work in uniformity with the Department of Agriculture in all these matters. I was under the impression at that time that there was an established Federal code of food standards having the force of law. That undoubtedly was the impression of our legislature when Idaho enacted her food and drug act, and which, like that of other states, is almost identical with the federal law. Imagine my surprise when on inquiring of the Bureau of Chemistry for a printed list of these standards I was told that they had none; that Congress had not given the Department of Agriculture power to formulate any standards, having the effect of law, and that the Department had followed in the main but not absolutely the definitions and standards embodied in Circular No. 19. This Circular No. 19 contains a list of certain standards promulgated by the Joint Standards Committee, authorized by Congress some years prior to the enactment of the National Food and Drugs Act and concerning which Dr. Brown of Tennessee says: "These standards are directory only and could not be sustained in the highest courts," while Dr. Woodward informs me "they are regarded merely as the expressions of the opinions of those by whom they were prepared." The President of the United States has declared that since the enactment of the Federal pure food law there is no authority in any one to fix standards of foods. Inasmuch as the Federal Bureau has far better facilities for passing upon questions of this character than has any state department, this National Association of Food and Drug Officials should memorialize Congress to amend the National Food and Drugs Act, giving ample power to the Department of Agriculture in co-operation with state officials to prepare and promulgate such standards and definitions as it now feels competent to do, and to add to such list other standards and definitions as soon as scientific research will permit their preparation; that when so promulgated they shall have full force and effect of law, and shall be rigidly and strictly applied. Then the states would have some fixed rule to work by, and there would be some good reason for that provision of our state law which compels us to accept the standards and definitions promulgated by the Federal Department. Then uniformity would be of some force.

SEVENTH.

"How much educational value is attached to the type of food shows that are being held at present?"

Kansas replies to the question in just two words; she says, "Not much." In that brief answer nearly all the states join. Mississippi says, "I should hesitate to express a positive opinion." Washington dubs them as "vaudeville entertainments and advertising schemes." "They are rapidly degenerating into a mere display of wares," says the District of Columbia. Dr. Wood of Maine remarks: "The average food fair is an advertising one and of little educational value." Texas also testifies that "so-called pure food shows in this country have been strictly advertising schemes of manufacturers to further the sale of their goods." Iowa and Nevada say pure food shows are good when held by the states, but Dr. Barnard of Indiana remarks, "The pure food shows put on by some of the states do far more hurt than good. Many such pure food shows are to be deplored, because they misrepresent the actual situation. A pure food show made up of old labels and old stock does no good and may do much harm." This, then, raises the question as to what kind of shows a state should organize in order to do the good intended. We regret more of the commissioners did not give us the nature of their exhibits in detail so as to determine this. Louisiana has a health train, which has visited every parish in the state, and is now on its second tour. "The results along the lines of pure food, pure drugs and higher health standards have been phenomenal," says Dr. Dowling, "and have put this state in the forefront of states which are improving sanitary conditions." Commissioner Barney of Iowa gives his experience as follows: "This Department has placed on exhibition at the pure food shows over the state an exhibit of adulterated and misbranded foods, together with a great number of charts. We also have a stereopticon lantern and occasionally give illustrated lectures in different cities in the state, telling the manner in which the food laws of this state are being enforced and conditions and instances of interest." Nevada says: "The exhibits made by this department at agricultural fairs, women's clubs and other associations in this state have been of great educational value." Commissioner Dinsmore, however, fails to give us an idea of what these exhibits are. Dr. Jaffa of California writes: "Many

of the food shows that are now being conducted have not the educational value they should have because there is not a strict enough supervision over the labeling of goods exhibited, and the literature accompanying the same. In our state last year we had the initial exhibit for our state of a food exhibition where such a supervision was exercised. This exposition was of great educational value in that there was an attempt to control to a very large extent intemperate advertising appearing on printed matter distributed in connection with food products. It is to be hoped that the movement so started will continue and be the means of eliminating from the market all such intemperate advertising; in other words, let the label and accompanying literature tell the truth, the whole truth and nothing but the truth." We may, therefore, reasonably conclude that food shows are profitable and desirable when prepared by the states, and when such exhibits serve an educational purpose and are not commercialized. Furthermore, the demonstrations at such shows should be honest. False and deceptive experiments by exhibitors which are intended to and do deceive innocent consumers such as the water glass test for albumenized baking powders, should be discountenanced. Commissioner Winkjer of Minnesota observes when they are used "for exploiting the sale of foods, the educational value is minimized and the commercial feature predominates. It, therefore, follows that the educational value of commercialized food shows are of doubtful or negative value."

EIGHTH.

"What is a reasonable ice cream standard?"

Here is where we have our hands full. Almost as well might we attempt to solve the question "How old is Ann?" or "Who struck Flannigan?" Louisiana starts us out by declaring, "No standard can be reasonable for all parts of the United States." Other states join with Vermont and say, "We consider the present Federal standard reasonable." What is the Federal standard? The author of this paper has tried to find out what definite line of action the Department of Agriculture is pursuing with ice cream, but without much success. Certainly it is not following the standard set out in Circular No. 19, where ice cream is defined to be a frozen product, consisting of clean cream, containing 14 per cent butter fat, sugar and harmless flavor. The District of Columbia is under the terms of the National Food and Drugs Acts, and certainly should be working side by side with the Bureau of Chemistry. It certainly does not adhere to the ice cream standard set out in Circular No. 19. Hear what Dr. Woodward says: "The standard set forth in the food inspection decisions of the United States Department of Agriculture is regarded as reasonable and proper, provided, however, that the sale of ice cream "containing less than the amount of butter fat called for by the rule laid down by said standard, and ice creams containing starch, eggs and other harmless substances, be allowed to be sold if the departure from the established standards be clearly made known to the customer at the time of sale either by a tag affixed to the freezer, if the freezer be sent out, or by proper display cards in places where such ice creams are sold to be consumed upon the premises." In the beginning of the enforcement of the National Food and Drugs Act there are one or two cases on record where judgments were entered up against defendants for selling ice cream containing gelatine on the ground that such ice cream is an adulterated product. However, such products are still being shipped in interstate commerce, and nothing has been done by the Federal authorities to prevent it. Therefore, there is very little to encourage uniformity on the part of those states whose desires are to work hand in hand with the Federal government, and it is up to the Department of Agriculture to stand on some certain ground in the matter, so that those states whose laws compel them to adopt the Federal standard and none other can do their work with some degree of assurance and safety.

Analyzing the answers received on this question, we find ice cream standards ranging all the way from 8 per cent butter fat to 14. Florida remarks: "Among the best Southern ice creams no cream is used; simply eggs, milk, sugar and flavoring extracts." In many states such a dish would be sold as "frozen custard," and the manufacturer would be subjected to prosecution for selling a misbranded article if he tried to palm off such a mixture for ice cream. Fully one-third of the states permit any kind of a filler or binder to be used so long as it is wholesome. For instance, Illinois provides: "Ice cream is a frozen substance made from cream, or milk and cream, and sugar, with or without the addition of such other wholesome substances as have customarily been used, such as eggs, flour, starch, butter, gelatine, flavoring, harmless colors, nuts, fruits, pastries and condensed milks and contains not less than 8 per cent milk fat." Maine permits the addition of almost anything that is harmless, provided the milk fat content is maintained.

Commissioner Allen of Kentucky observes: "A reasonable ice cream standard should follow a reasonable cream standard required of the dairyman. It is unfair and a great blow to the dairy industry not to permit a dairyman to sell cream of less than 18 per cent. standard, without labeling, and permit an ice cream maker to fill a skimmed or condensed milk with starch and other thicknesses and sell the same as if frozen from the product which the dairyman sells as cream. Whenever the dairyman's standard for cream, except as to sugar and fruit, has been departed from, consumers should be told about it. There are also very important sanitary reasons. For example, the writer is of the opinion that the cheap so-called ice creams are the ones which produce ice cream poisoning. There have been few, if any, records of ice cream poisoning where the dairyman's clean, uncontaminated, 18 or 20 per cent cream is frozen in connection with sugar, flour and fruit and served within a reasonable length of time. The admixture of all manner of ingredients, together with a greater field, because of more protein matter, for the bacteria to feed upon, the opportunities for contamination from impure gelatin, etc., are the most prolific sources of ice cream poisoning. Therefore, the consumers should know." There is none other than a commercial argument in favor of thickness in ice cream. Commissioner Winkler hits the nail on the head when he says "we have investigated the ice cream industry and find that a large profit can be made on ice cream containing 12 per cent of milk fat. We are aware that there are parties and associations who are opposed to this or any other standard, and assign various reasons to strengthen their position, but stripped of verbiage, the answer to this is found to be the dollar mark. In other words, they demand a standard dollar in exchange for a counterfeit substitute." As Dr. Ladd says, "the addition of gum or gelatin is usually for the purpose of misleading the purchaser or user of the ice cream." Certainly it is not used because of its wholesomeness as a food product or for its health-giving qualities."

NINTH.

"Is it advisable to teach testing of milk and cream in the agricultural courses now being established in many of our public and high schools?"

Kansas answers this question in a nutshell. Dr. Crumbine says, "No; better test for dirt." What more sane answer could be given. Dr. Woodward expresses the same truth in another form. He says: "Such instruction could do no particular harm, but in so far as it would be impracticable under ordinary circumstances for those who learn such methods of testing in such schools, to apply proper methods for the bacteriological examination of milk and cream, such instruction could not be expected to be of the greatest desirable value." Commissioner Allen of Kentucky also advocates the bacteriological along with the chemical test. So that viewing the question in the light of a health proposition, we had better do as Dr. Crumbine suggests—"test for dirt."

Now, then, for the commercial side of the question. Commissioner Davies of Washington says: "It is a very good thing to teach the Babcock test, but it should be well regulated." He then gives a specific example. Three creameries are in a town where such a course is established in the high school. The sons and daughters of farmers bring samples from their own farms to the school and test them. No supervision is had of the manner of taking samples, and as a result dissatisfaction is created with the tests of all the creameries, and grumblings are heard when these samples are submitted to the state food chemist for official test. To repeat, no one can doubt the advisability of such a course, but attempted official testing like the above should be avoided." Dr. Jaffa also reaches the same conclusion. He says: "I am sorry to say that a good many are too careless in the handling of the Babcock test. No better help or assistance has ever been offered the dairyman when properly carried out but when not properly carried out the reverse is true."

If pupils are encouraged to take samples of milk from their homes for analysis by the Babcock test the fact should be impressed on their minds that the results are not absolutely conclusive nor safe with which to check up with the creamery where such milk may be sold, because of many lacking details



from the milking of the cow to the time the test is made at the schoolhouse.

TENTH.

"(1) Is is advisable to enact laws providing for inspection fee; (2) should such fees be turned into a fund for the support of the dairy and food departments?"

Every state is opposed in principle to charging inspection fees, and the two or three who would favor it would do so only where there is no other way to get money to carry on inspection work. Minnesota gives a good reason as follows: "It is not advisable to enact laws providing for inspection fees, for the reason that inspection is for the benefit of the entire public and individuals should not be compelled to bear the burden. The cost of inspection should be borne by the state. It should be the duty of the legislature to appropriate sufficient funds to provide for intelligent or adequate inspection. When this is done, good results are always accomplished for the benefit of the consumer. Commissioner Frary says: "I think inspection fees are a form of special taxation, and believe that they should be eliminated as fully as possible from our laws. I see no reason, for example, why a hotel should pay an inspection when a grocer does not, or a butcher, or a hardware dealer." Commissioner Davies of Washington strikes at the meat of the question when he says "inspection fees always interfere with efficiency of service. No dairy or food official should be subjected to possible criticism or charges of graft for handling such moneys." "I am absolutely opposed to inspection fees," says Dr. Barnard of Indiana. "The principle is utterly wrong. If a state wishes to do inspection work—and of course every progressive state will so provide—it should pay for the work out of the treasury, instead of assessing the houses inspected." This also is Tennessee's conclusions, for Dr. Brown says: "Fees in a public inspection are not advisable nor admissible. It is not right to tax an individual for the public good. The public should pay these fees themselves." Commissioner Helme of Michigan, however, disagrees with these gentlemen. "I believe," says he, "that food inspection being made necessary by the wrongful acts of manufacturers and dealers in food products, that all such should bear part of the expense of such inspection. It should not all be settled on the taxpayer." This position, however, is not sound. If it is to punish "wrongful acts," then let the penal laws be invoked, but do not punish the innocent by imposing inspection fees simply be-

cause such inspection is made necessary by occasional "wrongful acts."

ELEVENTH.

"Is it best to control small slaughter houses under a sanitary food law, or would you advise the establishment of city and town public abattoirs, making it compulsory to kill all animals in those under the supervision of some state or municipal meat inspector?"

Mostly all the states favor the establishment of public abattoirs under state or municipal control, and all agree that ultimately such will come; but there are many difficulties at present in the way, such for instance where the population is scattered, as is the case in many of the states. Several of the commissioners point out this trouble in some excellent arguments. South Dakota says, "In our state conditions are such that I doubt the advisability of establishing public abattoirs. Our largest town has about 15,000 inhabitants and we have but five others with more than 5,000 inhabitants; very few of the remaining towns have 3,000 inhabitants. In view of this condition of affairs, I think that it would be impracticable to attempt the killing of all animals in public abattoirs under the supervision of municipal inspectors, and do not see how it could well be done with our scattered population under state inspectors." That explains the difficulty attending the establishment of public abattoirs as a general proposition. Still, conditions could be improved upon. Cities of over 5,000 population should be compelled by legislative enactment to establish municipal slaughtering houses, wherein the killing of all animals for human consumption within the corporate limits should be made compulsory, and over which a competent inspector should have full control. Of course, the Federal meat inspection should be recognized as valid and its sphere of usefulness enlarged. Then, for the smaller towns let the legislature enact a law similar to that in Idaho, which prohibits the sale of any meat from animals killed within the state unless prepared in a slaughter house which has been inspected and licensed by the state, and which law also goes to abuses in the slaughtering of animals and contains other very excellent features. This subject is of such great importance that a commission should be designated by this convention to take the matter in hand and present at our next meeting a model law to cover the entire question.



F. H. FRICKE.
State Food and Drug Commissioner of Missouri.

TWELFTH.

"Should the requirements as to labeling drug products be applied to physicians' prescriptions?"

To this question some very excellent suggestions are offered. The disposition seems to be general among the commissioners not to interfere with what is looked upon as a most delicate matter connected with a very valuable profession, and so confirmed are some in this position that seventeen commissioners say "no," absolutely and positively. Other answers received embody so many valuable ideas on the subject that we quote them herewith:

Oklahoma: "Physicians are rarely careless in regard to administering dangerous drugs, and it is oftentimes advisable to give this class of drugs without the patient having knowledge of the act. This also prevents patients from believing that they know what the physician is giving them, and that they can save a doctor's bill by buying the medicine at a drug store and administering it themselves, which is a very dangerous practice when powerful drugs fall into unskilled hands."

Tennessee: "I cannot understand why anybody should advocate the labeling of drug products in physicians' prescriptions. In the first place the physician is supposed to be an honest man, and not to give his patient anything which is bad for him. We cannot make an exception because of an occasional physician. In the next place the patient is supposed to have sense enough to select a competent and honest physician, and to read the prescription before it is filled, or if he cannot read it himself to get the druggist to read it for him. Where the patient has not sense enough to take care of himself he cannot expect the state to act as a wet nurse in such simple cases."

Maine: "I see no advantage and many disadvantages in requiring physicians to have their prescriptions declared on the package. So much of medicine as practiced is 'suggestive' that much of its effect in many instances would not be so active if the patient knew what harmless materials and inert materials he was frequently taking for medicine."

Minnesota: "The requirement as to labeling drug products should not be applied as to physicians' prescriptions. The physician's prescription is designed to meet the needs of a specific case under the physician's personal care, and there is no need for a statement declaring the composition of the medicine. Often it is very undesirable that the patient know the nature of the prescription, and the physician's plans would be hindered rather than helped by the information given. Proprietary remedies, so-called 'patent medicines,' and all preparations put up in form for public sale should be labeled as the law requires."

Louisiana: "On the one hand I believe that physicians' prescriptions should be labeled according to the drugs sold directly to laymen; on the other hand, we must take into consideration the effect on the patient who notes things on the label which might influence his condition."

North Dakota: "Since all drugs are supposed to be examined in the drug stores, it does not seem to me that it is necessary or desirable to require the labeling of physicians' prescriptions. At times there are reasons why it is not desirable that this should be done, but there should be means of protecting the public against abuses of those charlatans who characterize themselves as physicians and prey upon suffering humanity."

Texas: "Yes, the requirement as to labeling drug products should be applied to physicians' prescriptions, but the state commissioner should have the privilege of executive discretion and not make the law apply except in a case of quack and unscrupulous doctors who are generally well known in their communities, and who will give long distance prescriptions upon information received in answer to advertisements."

Illinois: "I think that the requirement as to labeling drug products should not be applied to physicians' prescriptions when such prescriptions are made after an examination of the patient, and are not used as a means to avoid drug laws for the sale of patent or other medicines."

Indiana: "The physician must not be hampered in his use of drugs, as might be the case if all of his prescriptions were required to be labeled; and yet in some cases, because of the practices of some physicians I believe the patient who is given narcotics should know what he is getting."

California: "I do not think that the requirements for labeling drug products

should be applied to physicians' prescriptions when physicians' prescriptions are used in the proper sense of the word; but I do believe there are a good many cases today where preparations are sold under the guise of physicians' prescriptions when in reality and in fact they are a preparation which should be labeled as a drug. I think there should be some specification regarding what is a physician's prescription."

Following are the propositions deduced from answers received to the twelve questions placed in an affirmative form for the discussion which will follow this paper:

First—A food or drug product shall be deemed to be misbranded when by admissions in very small type or omissions altogether the manufacturer, packer or distributor seeks to deceive the purchaser in regard to artificial colors, preservatives, or any other substance or substances which may be packed with but which are in no way a part of the food product itself.

Second—A food or drug product shall be deemed to be illegal whenever it is adulterated or misbranded, or when deception is resorted to in aiding in its sale or distribution; or when any wholesome ingredient has been added to it that renders it less valuable as a food product.

Third—The sale of terpeneless extracts should be prohibited by law, and all lemon extracts should be required to contain at least 5 per cent lemon oil.

Fourth—Congress should be memorialized by this association to amend the National Food and Drugs Act so as to confer the authority upon the Department of Agriculture, in co-operation with state food officials, to formulate standards of purity for foods and drugs. The Department shall be required to make every investigation within its power, either scientific or otherwise, to accomplish this purpose; such standards shall have full force and effect of law, and be conclusive evidence in any court of competent jurisdiction of the facts set out; because of the unexceptional facilities the Department of Agriculture has to arrive at a just determination of what are reasonable and proper definitions for food and drug products, we pledge each other to adopt and enforce such standards in our own states so as to bring about a better condition of uniformity in our work than at present exists.

Fifth—Food shows are profitable and desirable when prepared by the states, or when such exhibits serve an educational purpose; but we condemn all so-called pure food shows which are commercialized and those inaugurated by manufacturers as advertising schemes to further the sale of their goods, particularly shows which include false and deceptive experiments intended to deceive the consumer as to the value of the goods.

Sixth—The use of wholesome ingredients other than cream, sugar and harmless flavor should be permitted in the manufacture of ice cream products, provided all such products are labeled, tagged or placarded to show their presence.

Seventh—It is more important for our high schools to teach how to detect and prevent dirt in milk than it is to teach how to use the Babcock tester.

Eighth—This organization disapproves of inspection fees on the ground that such inspection is for the benefit of the entire public; and that it is not right to tax an individual for the public good. The expense of all such work should be borne by the entire state.

Ninth—A commission should be appointed at this convention to prepare a model state law providing for the inspection and licensing of all slaughtering houses in cities and towns having a population of less than 5,000. We urge our legislators to enact laws prohibiting the sale or consumption of any meat food products in cities of over 5,000 population, unless the same has been prepared in a municipal abattoir, which shall be under the control of a qualified inspector, who shall be appointed for his competency and who shall not be subject to political influences, or unless the meat has been prepared under Federal meat inspection law.

Resolved, that as a means of protecting the public against abuses of those charlatans who characterize themselves in public print and through the mail as physicians, and who prey upon suffering humanity, we recommend the enactment of federal and state laws which will require that all mail order prescriptions and medicines be labeled to show the presence and quantity of any narcotic, poisonous, harmful or habit-forming drug.



GEORGE B. TAYLOR,
Assistant Food Commissioner, Louisiana.

Mr. Billingsley, Alabama: Gentlemen—I have been requested to announce to you that those desiring to go on the boat ride planned for you by the Mobile Chamber of Commerce and Business League, will meet in the lobby of this Hotel, in the morning at a quarter of eight o'clock.

The Secretary: The Secretary desires to say that all members present have paid their dues for 1912, and that he is now ready to receive their dues for 1913, from any member.

The Chairman: Gentlemen—The paper of Mr. Wallis is now open for discussion.

Dr. Caspari, Maryland: I would like to make a suggestion in this matter. The very able paper which Mr. Wallis has just read, has interested everyone present, and much good could be derived if the propositions could be taken up separately and discussed at different times. As each question is taken up individually, it can be discussed and passed upon, and, if that meets the views of the convention, I think it would save time, and be more productive in the end.

Mr. Woods, Maine: I think that this outlines something that this association has failed to do. Gentlemen: Really, when I received and wrote my answers I did not believe that they would be—or that there would be as valuable results sifted out as Commissioner Wallis has been able to get. It seems to me that this association wants to do constructive work, but it wants to do the work with sufficient deliberation so that when we have passed upon these things, we shall not have to change our opinion, and, while these things might be discussed at this time, I am inclined to the opinion that if we could refer this to a committee of three or five, to discuss them, and consider them, and to report their corrections and their recommendations upon these questions at another convention, that we will accomplish something definite, and something that we will be sure about, more so than if we passed upon, or turned down these things at this convention just now. I would move that after this discussion, which I do not want to try to limit, that the whole matter be referred to a special committee of five to be appointed by the Chair, and that this Committee be instructed to investigate and report on this matter, at the next convention of the Association.

Mr. Potter, Connecticut: I would

very heartily support Mr. Woods' motion. I think that it would be a very wise thing to do. I think, as he does, that we ought not to pass upon them unless we know, and are absolutely sure of what we are doing in the matter.

Dr. Bryan, Illinois: I am in favor of the spirit of this motion, but I feel that the matter has already been presented, but in a little different way. Mr. Allen proposed the appointment of Committees by a committee to look into all these matters, and report on them to the association,—dividing the association up into committees, and, as Mr. Woods has said, there being so many different subjects taken up in this paper, I feel that we will get very much better results if this motion were not carried, and the motion, as proposed by Mr. Allen, which he has made, were carried by the Association, and these matters and this paper be referred to these special committees; so that we will have enough committees to take up this thing. I would be pleased myself, if Mr. Woods and his seconder would withdraw his motion under these circumstances, inasmuch as the matter, as it is understood, is going to be provided for.

Mr. Woods: I do not understand that that motion was before us.

The Chairman: There was no motion before the house, except the request by Dr. Bryan, and except his motion.

Mr. Allen, of Kentucky: I made a recommendation to the Association a few days ago to make a special order of business, that a committee composed of the President and the heads of sections be appointed to appoint such appropriate committees as were necessary to deal with just such questions as the Commissioner from Idaho presented to us, and that those committees be made temporary for the coming year, and that they be required to report to the Association in 1914 upon such subjects as may be turned over to them by this committee, and let the association then determine its future policy.

Mr. Woods: Has that matter been adopted?

Mr. Allen: No sir, and it occurred to me, that since Commissioner Wallis also recommended a committee for inspection of milk and meat inspection, and committees on a number of subjects, I would like you to withdraw your motion and permit me to substitute the motion that was made a special order for yesterday, but which did not come up.

Mr. Woods: I would like to move to lay it on the table until we see what becomes of this other matter.

This motion of Mr. Woods was duly seconded.

Mr. Allen, Kentucky: I move that the incoming president of the association, and the incoming chairman of sections be constituted a committee to divide the work of this association into temporary committees, with full power to appoint such committees, and to designate their work, and that all such committees be required to report to the Association in 1914, with respect to the work they have undertaken; that such committees be only made temporary, for the coming year, and that the whole matter be referred to the association in 1914.

Mr. Woods: I second the motion.

Mr. Wallis, Idaho: Before this motion is acted upon, I am going to vote for this motion, with this exception,—that the position I have taken there with regard to petitioning Congress, with regard to amending the National Food and Drugs Act, so as to give this power for standards to the Department of Agriculture,—I would like certainly that this Convention today adopt that part of my paper.

Mr. Woods: As I understand it, the motion before us has nothing to do at all with Mr. Wallis' paper.

The Chairman: Gentlemen: You have heard the motion, which has been duly seconded, those in favor of it will please signify by saying "Aye," and those opposed "No." The "Ayes" have it and it is so ordered.

Mr. Woods: I move that all of Mr. Wallis' paper, with the exception of No. 4, contained in Mr. Wallis' paper, be referred to this committee for their disposition.

Dr. Bryan: I second the motion.

Mr. Wallis: There is also another one,—I would like to submit the last one No. 12 for the same action,—that is as to the means of protecting the public, as to labeling, with the recommendation of the enactment of Federal and State laws, which require that all mail order prescriptions be labeled to show the contents.

Mr. Woods: That, I think, is a very radical matter, and I move that that be referred to the permanent investigation.

Mr. Wallis: Everything then, excepting that one clause goes to this committee or committees,—but I believe that there is merit in that last recommendation. The recommendation that I last read.

Mr. Woods: It is not because there is not a large amount of merit in it, but I think that we ought to give it pretty careful study before we act upon it.

Mr. Wallis: I would like to satisfy Mr. Woods,—that this is not for us to do,— it is only the recommendation to our Legislatures, and they will consider the proposition.

Mr. Woods: I understand that. This is a very important matter, and I, for one, would be very sorry for the association to go on record on so important a matter as this, unless we are very sure of it. I believe we ought to do it, but I believe we ought to be sure.

Dr. Bryan: I feel exactly as Mr. Woods does. I am in sympathy with the feeling and sentiment which Mr. Wallis has expressed in his paper, but I feel that when this association goes on record in this matter, it should go on record with an exact knowledge of what it means. We would never feel that we wanted to require an article labeled simply because it went through the mails, as is stated in this resolution of Mr. Wallis; if it came from a really active family physician to one of his clients whom he had been treating continuously for a long time, but who was temporarily absent from his home, and I think we want to be careful to have the wording exactly as we mean it, and that we should have the matter thoroughly discussed and studied before we do anything.

Mr. Wallis: If that is the impression that Dr. Bryan has got,—my position is not against reputable physicians.

Dr. Bryan: I understand that thoroughly, but the wording that you have mentioned would not cover the case you mention.

The Chairman: Gentlemen—The question before the house, is that Mr. Wallis' paper be referred to this committee, with the exception of question No. 4. Those in favor of this, will please signify by saying "Aye," and those opposed "No." The "Ayes" have it; the motion is adopted, and it is so ordered.

Mr. Woods: I wonder if No. 4 of Mr. Wallis' paper had not better go to the Committee on Resolutions?

Mr. Wallis: I am one of the Committee on Resolutions, but I really believe that we would like some discussion on this question.

Dr. Bryan: I move that this matter be referred to the Committee on Resolutions, with instructions to report it back at this session in such form as they deem desirable. (This was duly seconded.)

Mr. Woods: I would ask that Mr. Wallis read No. 4.

Mr. Wallis then read question No. 4, contained in his paper, which was as follows:

"What is the purpose of that clause of the federal law (and some state laws) requiring a declaration on the label of the presence of morphine, opium, cocaine, chloroform, acetanilid, etc., in foods."

Mr. Woods: I think it is a good idea to refer that to the committee, and I feel confident that when it is brought back by them, it will be referred together with the rest of it to the Committee.

Dr. Bryan: Inasmuch as it is now in the form of a resolution, it should certainly go to the Resolutions Committee.

The Chairman: Gentlemen,—you have heard the motion, which has been seconded, those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "Ayes" have it, and it is adopted, and so ordered.

The Chairman: The next thing appearing on our program for this morning is the paper by Mr. George L. Flanders, of New York, on the subject "What should be the attitude of Food Officials, charged with such duties, towards the supervision of sanitary conditions and of food served in dining cars, restaurants, hotels and eleemosynary institutions."

One of the very big questions before the food commissioners of the country is this very matter of the condition of institutions that serve food either to the public or those who are charges upon the state. Local health departments in various states have done something in the way of cleaning up public places where food is served, but the work, so far as state food officials are concerned has scarcely begun. To cover an entire state from the food commissioner's office would require an army of inspectors, and would entail work upon the food commission that would not only be a burden but would interfere with the more obvious duties of the department. Eventually there is likely to be more effective sanitary work by local health boards working in harmony with the state pure food commissioner. The larger state institution can be covered by the food officials of the state at a comparatively small cost in money and energy, since all may easily be brought into harmony. But the management of sanitation extended to private institutions.



What Attitude Toward the Supervision of Sanitary Conditions in Restaurants, Hotels, etc.?



By George L. Flanders—Council New York State Department of Agriculture

THE plain and simple answer to the above question can be given in a few simple words—namely, the attitude should be for a full. fair and equitable enforcement of the statute as it is in so far as it applies to the places or institutions above included. Were I to stop here I would have answered your question with brevity, but as I understand it fully. But this answer involves some other questions. It is so like some labeling—so general in its character as to give little or no enlightenment. The above answer involves the following questions:

First—What is an equitable enforcement? And that depends upon the interpretation of the statute. This places the executive officer in the position of having to interpret the intent of the legislative body from the face of the statute itself. The next question involved is whether the statute is in any way in conflict with the supreme law of the state or the nation. The executive duty is plain as to the last of these propositions. The statute enacted by the legislative body is presumed to be constitutional and it is the duty of the enforcing officer to proceed upon that basis, leaving all such questions to be raised by the person who feels that he is aggrieved, and when raised the matter is then to be presented to the courts for their consideration. It is the duty of the enforcing officer to present to the court the best views in relation to the constitutionality of the act, leaving the contestant to present to the court the feaures of the law that he claims to be unconstitutional or in conflict with constitutional provisions, the burden of proof being upon the contestant. It is a well settled proposition that he who alleges that statutory enactment is in conflict with a constitutional provision must show actual conflict, and the contestant has to meet in this struggle the proposition understood to prevail in the courts, to wit: that such a construction will be given a statute, if possible, as to give it full, fair and equitable enforcement without finding it in conflict with the constitution of your state, but if that cannot be done, then it will be declared void.

The interpretation of the statute then is often times a difficult proposition and is one devolving upon the executive. His first duty is to examine or cause to be examined with great care the provisions of the statute to determine his power. authority and duty in order that he may know not only what he is authorized to do but that he may also know his limitations. Having determined this his next step should be to proceed to enforce impartially against all persons coming under the jurisdiction of the statute. Of course by the word persons I mean establishments, corporations, associations, institutions or other combinations.

The first steps in the enforcement of the statute should be publicity as to its provisions and requirements. This work should be pressed home to all persons interested with sufficient vigor so that they may have no excuse for pleading not to know the law. It is of course a theory that all men are supposed to know the law. It is a well known fact, however, that a large majority of the people do not know the law. So I say that in enforcing such statutes which are penal in their nature all persons who may be involved should have sufficient notice to make it impossible for them to plead ignorance of the statute. This having been done, a large proportion will without doubt not only conform to the requirements of the law, but will become more or less of an aid in enforcing it as against the others. This should be followed up by examination and investigation to determine as to the extent, if any, of violations. As much discretion as possible under the statute should be exercised at this point to determine whether violations were intentional or the result of carelessness or heedlessness or were simply the result of a misconception of its requirements. In the latter case the discretion to which I have just referred should be exercised. The heedless should be jogged sufficiently to awaken them from their stupor if it may be thus termed, while the wilful violator should be proceeded against with all the vigor of the statute.

At this point the executive officer may meet his first shocks, because the man who from his standpoint has apparently violated the statute, apparently defiantly, states that what he is doing is not within the prohibition of the statute, and because he is ready to contest the officer's construction of the statute in the courts, a place where personal and official fiats are supposed to fall and where constitutional statutory enactment is supposed to receive proper interpretation and to stand approved. Then for the first time a third element is brought into the controversy, and fortunately or unfortunately, as the case may be, that third element determines which of the two is right. For the first time, then, the authority to determine has been transferred from the enforcing officer to another party. In order that the people's cause may not here receive its Waterloo, the interpretation that was placed upon the statute at the beginning should have been reached with such care and caution as to make it highly probable that it is correct. Here it is perhaps for the first time that the executive officer questions very seriously or his attorney does as to whether he has made any mistake in his conclusion as to the meaning and requirements of the statute. It is in view of this juncture in the proceedings that we should all in the beginning of our work exercise the greatest possible care to reach the right conclusion as to the meaning of our statute, and having reached that conclusion, our duty is manifestly plain—namely, to proceed as above stated to an impartial, equitable enforcement of its provisions.

At this point I may perhaps be pardoned for a diversion in calling to your attention that it quite frequently and perhaps too often is the case that individuals criticize the results obtained from the courts and then proceed to criticize the courts on the theory that they are to mete out justice and that in a particular case they have failed to do so. We all agree that justice is the desideratum, but the point in my diversion is to raise for a moment the question of what is justice. Is it to be determined by some standard fixed by a duly authorized body or is justice to be a consensus of opinion of the popular mind not expressed in statutory form, not printed or bound or elegible to those who are charged with the enforcement of justice, but a sort of will o' the wisp, an elusive, intangible, imaginary principle, so that in endeavoring to arrive at a conclusion as to just what it is he really has to exercise his own judgment and that that becomes his standard? If the latter is justice, then it would be presented in as many various forms as there are minds to differ in relation to it. It is the speaker's notion that justice consists in giving to every man his rights as determined by law, when they are so determined, and to press upon him the enforcement against him, if necessary, fairly and fully all the legally enacted statutory requirements: that the statutory requirement is the standard by which justice is measured and that the courts are the duly constituted authority for determining what they mean, and that the ordinary layman who does not even know the provisions of the statute and is not versed in statutory construction or the legal principles underlying the same is in the position of being supremely presumptuous when he utters criticisms concerning that of which he knows little or nothing. He may not be pleased and may have a right to express his displeasure with the result in the aggregate, but he should be cautious as to where he lays the blame.

Such result may be one that meets with the disapproval of the public generally. It may be one that was not apprehended as possible at the time of the inception of the thought that ultimately produced the statute upon which the interpretation was rendered. The difficulty may have been, however, that the statute was unhappily worded by an honest, energetic devotee, who in his zeal kept in mind but one point, so wording his statute at all times as, apparently to preserve that point but in reality so over-loading his statute as to

lose the point. In other words, that a statute was so ill-advised that it encompassed its own defeat. It might be the case that the statute was in proper form and properly worded, but the facts in his case either were not such as to come fairly within the prohibition or that all the facts were not presented or were not properly presented to the court for its consideration. For let it be impressed upon your minds that a court can take cognizance of only such facts as are presented to it for consideration.

It is a presumption in all mooted or litigated questions that the attorneys on the respective sides will present for the consideration of the court the best possible evidence for establishing the views which they maintain should be upheld by the courts. With this illustration I reach the conclusion that it is quite unjust, even unjust to the mental balance of the mind who uttered it, to utter a criticism of the decision of a court unless he is sufficiently well versed in all the facts that were presented to the court and in all the phases of the statute under consideration so that he can reach a just conclusion measured from the standpoint of the statutory intention, as to the proper place to lay his criticism, which in all probability he will find to be a weakness somewhere in the statute itself. After the court of last resort has reached its conclusion, it is idle to waste time and energy in discussion. The remedy is then plain—namely, to start again at the point of beginning by placing before the proper legislative body all the facts, and asking that body to amend the statute, provided of course that such amendment is in accord with the desire of the people.

CONSTITUTIONAL QUESTIONS.

As to food served in restaurants, hotels and eleemosynary institutions, presumptively such institutions are stationary and wholly within the state, although I have known cases in which a hotel stood astride a state line, with the bar in one state and the dining room in another; where a man would sleep in one state and transact his daily routine of business in another. But such cases are so exceptional that my presumption can be accepted without fear of doing violence to the facts generally. The food products used in such institutions sold within the state would, notwithstanding that some of them have been purchased in some other state, when opened for use, come within the provisions and under the surveillance of the state laws and such state laws so applied ordinarily would not be subject to constitutional criticism except from the standpoint of the state constitution. Not necessarily so with food or drinks served in dining cars. As to such food or drinks so served I am of opinion that state laws do not apply except as to oleomargarine and whiskey, except such dining service as serves wholly within the state. The said state laws do apply to the commodities mentioned for the simple reason that the Congress of the United States has enacted that such products when taken into a state shall immediately upon entering the state become subject to the laws of the state in the same manner and to the same extent as though they had been produced within the state. This makes these two commodities an exception to the general rule as laid down by the United States Supreme Court in a case considered by that court entitled Leisy vs. Hardin, reported in 135 U. S. 128.

The Chairman: According to program, Mr. Charles D. Woods, of Maine will open the discussion on this subject.

What Attitude Toward the Supervision of Sanitary Conditions in Restaurants, Hotels, etc.?

By Charles D. Woods—Director Maine Agricultural Experiment Station

Mr. Woods, of Maine: Of course, it is assumed that in the sanitary conditions of these various institutions such as restaurants, hotels, etc., it must of course only devolve upon the State Official to examine these in case he has an extension of the sanitary law. That is, the Federal Law would not place him in authority to do it. I know a little about law, but I feel tolerably confident, however, that if there were dining car service in the State of Maine, that we knew needed inspection for sanitation, that we should attempt to control it under the State law, even though the cars run over the State border; that while they were in the State, we should see to it that the public was protected. In fact, so far as Maine is concerned, I do not recollect that we have ever sent an inspector into a dining car within the State. So far as the other institutions are concerned,—the restaurants, hotels, and charitable institutions, and penal institutions, within the State, we have inspected these. We have sometimes inspected them because of complaint; we have often inspected them, because we wanted information, and there has nothing that we have found that has needed sanitary inspection more than the hotels. I have very little doubt, too, that if this particular house that we are in today were inspected, it would certainly be improved. Certainly there is no man here that would care to tolerate the amount of flies that are in the dining room of this hotel, and I believe that we owe it to the public to protect them from these flies in a restaurant, just as much as we possibly can. We also, within our own State, inspect boarding houses, so far as our law will allow us. We are very careful not to go beyond what the law asks us to do, but these various institutions, the charitable institutions, need the inspection for their own safety. They are very much in the same position as the man who is Treasurer of this Association,—he needs to have his accounts audited, not because he has been cheating, but for his own sake,—and so with these eleemosynary institutions,—they have welcomed the investigations in our State, and when we have received our reports, and they get our criticisms, they make the corrections, so as to put themselves in line with the law. In the State prisons or insane asylums,—I regard it as our duty to just as thoroughly inspect the institutions that are under and run by the State under the law, as I do the institutions that are run by private individuals. I don't think that there is anything more on this subject that I could say. Mr. Flanders has given us very clearly the scope of the law, and if I got a complaint from dining cars and tried to make trouble with them, I would probably find that I could not inspect them, but I would give them publicity. We could get it corrected by calling it to the attention of the Superintendent of the dining car. We have a duty to our people to handle these things in connection with hotels, restaurants and eleemosynary institutions also, with the proviso that our law gives us control over sanitation.

The Chairman: We will have a further discussion on this subject by Mr. James W. Helme, of Michigan.

Mr. Helme, of Michigan: It seems to be very little to this subject because I believe, most of our State laws provide that we shall inspect hotels and restaurants, and those classes of institutions, but in regard to dining cars, I have never sent any inspector to inspect the sanitary conditions outside of the fact that I put the inspector on dining car trains and took samples of butter, and that has been the extent in Michigan to which we have inspected dining cars. With regard to State Institutions, we make two annual inspections. We send inspectors, and go through them in every way, and we make suggestions to them, showing them where they could be improved. At one of them last year, they had a formula for baking powder, which was a great success, and we took it up and sent it to other institutions. Some were buying their coal much cheaper than the balance, and we took that up also with the others. If we found good sanitary conditions in one place, we communicated it to the rest, and in that way, we have done our state institutions a world of good. I think that covers all that could be said.

Mr. Potter, Connecticut: I would like to ask Commissioner Helme if he has any jurisdiction over the use of oleomargarine in the State institutions.

Mr. Helme: I would state that we have a law in Michigan that provides that no oleomargarine shall be used in the state institutions, and they endeavored to have that amended at the last Legislature. Michigan is a butter-producing State, and why should we turn right around on our own people. They came to me about it, and I finally made a compromise with the people on this line—I said, if anybody wanted to inflict oleomargarine on persons as a punishment, that was all right, but further

than that, I would not agree with them. Consequently the bill was amended, and it may be used in the penal institutions of the State.

Mr. Potter, Connecticut: It seems to me that there is a general impression among the commissioners of the different States that as their official title is "Dairy and Food Commissioner," that one of their particular duties is to protect the dairy interests of the State—Is that an actual fact? Is not the Dairy and Food Commissioner empowered to look after the foods that are served to the general public? Is it any more his duty to protect the dairy interests of the State than it is to protect the interests of other manufacturing concerns? I simply bring this out to start a discussion.

Mr. Helme: I want to state right here that we shall encourage the dairy interests in the State, and we shall hold educational meetings to encourage the dairy, and we have always done that. Michigan is the third state in the production of cheese, and the fifth in the production of butter in the United States, besides having a large number of condensed milk factories, and the industry there is constantly increasing, and all these things have been taken into account by the Legislature, and our Department has been especially constituted regarding the dairy.

Mr. Abbott, of Texas: May I ask the Commissioner from Michigan a question? The law expressly provides for the encouragement of the dairy interests—does the law provide for the discouragement of the oleomargarine interests?

Mr. Helme: Our law encourages the dairy interests, and oleo. is our competitor, and the encouraging of the dairy interests would naturally discourage the fraudulent use of butter substitutes.

Mr. Abbott: What is your reason for discouraging your oleo.?

Mr. Helme: Do you mean in State institutions?

Mr. Abbott: Anywhere.

Mr. Helme: For the simple reason that it is a competitor of butter, and nine times out of ten, it is sold fraudulently.

Mr. Abbott: Can't you prosecute the fraudulent sale under the law?

Mr. Helme: Yes, sir; we do, and in the next place, it is a competitor of butter, and we in Michigan, where we are manufacturers of butter encourage the butter industry. If I had a grocery store, I would patronize myself. The State of Michigan ought to patronize their own institutions. Self-preservation is the first law of Nature.

Mr. Abbott: Mr. Chairman and Gentlemen of this Association—it is certainly wholesome to hear someone make the open, frank confession that the reason for discouraging the use of oleomargarine is simply a commercial point. It is a question of dollars and cents. In the South we feel like we are a little bit broader and liberal in our views. We encourage the dairy industry, and the butter industry, and also the cotton industry, and all cotton products industries, and I have no idea that I would permit any institution that I could prohibit that would tend to discriminate in favor of my products against another product. I do not think that it is fair and just. I believe in letting everything stand on its merits. We have laws just as strong to prohibit the sale of substitutes for butter. If butter is not wholesome we have ample laws to protect our people against it, and I do not feel that sectionalism should enter in the administration of food and drug laws. So far as the wholesomeness is concerned, I do not think anyone doubts that oleomargarine is a wholesome product. I do not think anyone doubts that it is just as wholesome as butter, as it is generally consumed. For my part, I would rather have oleomargarine than the ordinary country butter. So far as using any means, statutory or otherwise, affecting one of these products differently from any other product, is bad, and is not founded on any fair principle.



CHARLES D. WOODS,
Director Maine Agricultural Station.

Mr. Helme: I am a free-trader. I want you to understand that I am not a tariff reformer, but let me say to the Gentleman from Texas, that they will find out in the course of a few years that they will make a mistake, in thinking that they will help the cotton interests by standing by oleo. You have got to take a broad view of the subject. The continual growing of the cotton in preference to the live stock has exhausted many lands of the South. Now I buy cotton seed meal every day on my dairy. There is more fertility as a result of this after I have given it to my cows. What is the result? I and large numbers of other Michigan dairymen are simply taking the fertility out of the farms in Texas and putting them up in Michigan. They are losing the worth of their soil, and we are getting it.

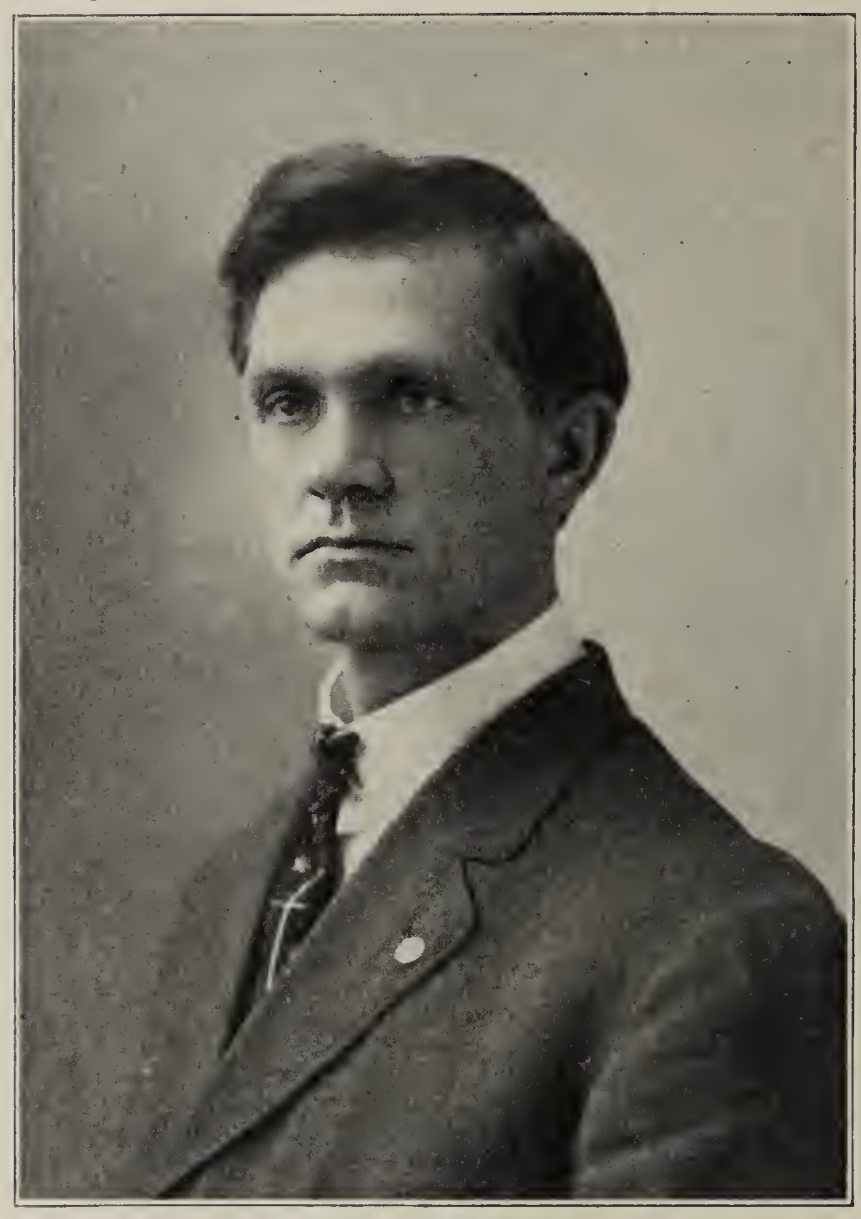
Mr. Abbott: The criticism that we of the South have not been doing properly is well taken. I do not agree with the inference however, that it is necessary to produce less cotton in this country than we have been producing. If we are to increase our livestock industry, we have cause to increase the food products, upon which our livestock depends, and there is no better food. You don't know how much I would have given for that little speech of two minutes ago, when I was compiling my book on that subject. I don't make any bones of telling you about it. But it does not argue at all on this question of butter and oleomargarine. I am just as free to advertise good butter as "good butter," as anybody. I want to see the butter industry and the cotton industry grow, and I want to tell you what you will see some of these days:—the recognition of these facts—that the food value for man and beast of the food in cotton seed products, from the cotton on an acre of ground in this country, is pretty nearly as valuable as an acre of corn that can be produced in this country. Our people do not know the feeding value of cotton seed to man or beast; the common farmer does not even know that his laundry soap comes from the cotton that he raises. We have got to depend upon the Netherlands and England as a market for our cotton seed. I think that it is a very unwise policy for us, indeed, to knock one of our wholesome food produsts in a section of the country to the advantage of another wholesome product.

Mr. Flanders: It will be noted perhaps that I did not enter into the proposition of discussing the different laws in forty-eight States. I did not consider this, but the discussion on oleomargarine has interested me very much, and I must make a confession to you gentlemen—that I am today President of the National Dairy Union, an organization fighting at Washington on this subject. So when the question was brought up, I was naturally interested. The attitude, however, of the National Dairy Union is not the attitude expressed by Mr. Helme, that we want to put down oleo. Our attitude is that if butter cannot stand up, it had better fall. We do not say one word about oleomargarine. It is not the competition we wish to put down; it is the taking of a substitute for butter and coloring it in imitation of butter and passing

it off as that butter, that we do not want. That is not competition in any sense of the word, but it is a rank substitution. It is the selling of oleomargarine as butter, when butter was asked for, that we are against. Now I went to Fort Worth, Texas, as a delegate one time, and we stopped at a hotel in that city. At the table they served us oleomargarine. I was not an expert, and I could not tell it. I asked if it was butter and the man with me said "yes"; I called the waiter and I said "I am from New York City, and I want butter" and he said "That is butter," and I finally called for the head waiter, and I asked him for butter, and he said that was butter. I told him it was not, and he finally said that that was the only stuff he had in the house and that he was sorry but that they did not have any butter. If that is competition, my friends, then God deliver us from competition. If one commodity is as wholesome as the other, then let the one that has it have it, but let him and make him sell it for what it is. Let him sell it if they want it, but let him do it by competition and not by substitution.

Mr. Winkjer, Minnesota: Oleomargarine we know is one of the earliest frauds in substituting in food products. All of the time of its existence, it has been substituted because it has been the cheaper product. We know that throughout the whole thing, that the profits are the principal incentive of nearly all of them, and we find at the present time that oleomargarine can be manufactured for just about half of what butter can be manufactured. That is, the total cost of production of oleomargarine is about half of what it costs to produce butter. With that incentive, we can never look for a time when there will not be an attempt to parade oleomargarine for butter. I would say that every commissioner and law enforcer of the United States should beware of this fraudulent sale of oleomargarine.

Mr. Abbott: I do not like to continue taking up your time, except for the fact that there is a principle involved worthy of notice. Gentlemen, it is extremely gratifying to me to hear a butter man say he got some oleomargarine in Texas, where I live, that was so much like butter that he thought it was really genuine buter. Now, if it is wholesome, and he cannot tell it by looks, smell, or taste, what is the difference? In asking that question, I speak lightly, I am not talking about that seriously, but, just because oleomargarine is a distinctive product, and is so much like butter, is that any reason to say that oleomargarine is prima facie a fraud? Is it? Furthermore, we have food and drug laws based upon the fundamental principle that a man shall not sell one product under the name, guise, or, in method, deceive in imitation of another product without the people knowing that fact. Why should we speak of oleomargarine as a fraud because of its form, any more than we should speak of a lard compound as a fraud, because it has the form of lard that comes from a hog. I maintain just as strongly as any of you that oleomargarine shall not be permitted to be sold as butter. But am I to go out and prejudice the minds of the people against the product just because it has the form and constituents of some other product that happens to exist? Mind you—at the New Orleans meeting, one of our commissioners was arguing, and wanted a resolution put through for a ten cent tax on oleomargarine, to prohibit it from being sold for butter. I maintained that there has not been a man in America who has prevented fraud in the food products by tax. If we have to tax oleomargarine ten cents because it is sold in imitation of butter, why should we not tax colored distilled vinegar, and so on—I could give you lots of them, list after list. But there has never been in this country, to my mind, any principle of food production that has the principle of taxation behind it to prevent fraud. In closing, I want to emphasize the fact that I shall use just as much energy in preventing the sale of oleomargarine as butter as any man in the world, but I do not believe it ought to be discriminated against by taxation or by sectional conditions at all.

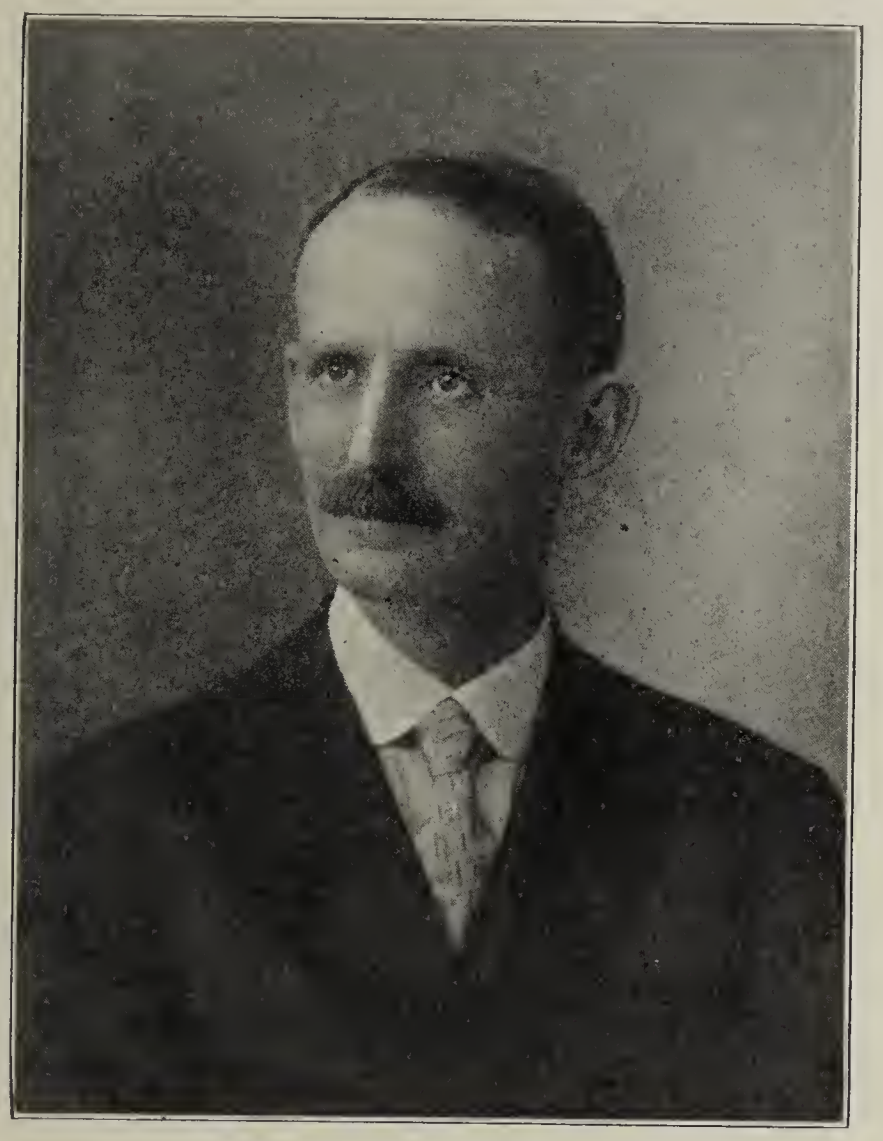


JOEL G. WINKJER.
Dairy and Food Commissioner of Minnesota.

Mr. Bryan, of Illinois: Gentlemen—Coming from Illinois, I would like to speak upon this subject, as one who is interested from both sides. We have a few dairies in our State and a few packing houses; we make some butter and some oleomargarine. Our food commission necessarily has been called upon to take a stand as to its attitude towards these two industries in our cities, and we have felt that above all other things, we must consider the people—the consumer—and that whatever attitude we may take, it must not be one which should reduce the quantity of food valuable for the people, nor should it be one which should reduce its quality, but that we should do everything in our power to increase its wholesomeness in point of quality. The subject before us is as to the using and taking up of these supplies in eleemosynary and State institutions. In our State, the State Board of Administration makes purchases for all the institutions in the State, except the penal institutions. Instead of butter, they purchase oleomargarine, according to specifications at that call for fourteen and a fraction per cent of butter in the oleomargarine, and along the lines of the general principles which I have laid down it has been the recommendation of our Department to this Board of Administration that the use of this butter in the oleomargarine should be cut out both in the interests of economy and of quality. The testimony at Washington at one of the hearings, by the packers themselves showed that the best quality of oleomargarine in general—there being exceptions—but in general, was that to which no butter was added, and that the general addition of butter to oleomargarine was in order to cover up the use of inferior stuff. Therefore, taking their own testimony, which the speaker at that time asked to have confirmed—and which was not denied—we have recommended to the State Board that they specify an oleomargarine containing no butter. Illinois has laws which are stringent with reference to the sale of oleomargarine colored in imitation of butter, and those laws are being enforced as rigidly as we can enforce them, and when we find that we can strike a harder blow against the fraudulent sale of oleomargarine, we call in the Internal Revenue Department to our assistance, and there are several men serving time now, put there through the forces of the Internal Revenue Act. Does the gentleman advocate the waste of this product? What shall we do with all these things? As we get them in the packing houses, they are not valuable for the food of ordinary farm animals. Are you going to throw them away, or are you going to leave it to what was really the spirit for which you were appointed—to help you get the people to get cheap, healthy food, in large quantities, sold under its

true name—sold at a price which is just to the article and not unreasonable. I have been connected with the State Food Department eight years, and if you will read the report of that Department, there is a cry against this tax against oleomargarine, and there is a cry against the coloring of oleomargarine to assimilate butter. The Illinois State Department intends to stand from now on to encourage in every way possible the sale of every wholesome food product at the lowest possible price and the use of every wholesome by-product, and the condemnation and prosecution for every sophistication and every fraudulent sale that is brought to their attention.

Mr. Allen, of Kentucky: There is much in this discussion this morning that causes me to have a philosophical turn of mind, but what I arose to remark was concerning the little talk we had in the association on the roof garden. On that particular occasion, the gentleman from Illinois, with great caution, inquired under what particular jurisdiction of law, an officer or an expert in the State of New York had a right to publish that a particular brand of fertilizer was below a prescribed value, in an effort to eliminate bad fertilizer in New York. Now my question is, under what particular State Food or Drug jurisdiction does the commissioner from New York call forth the facts of the Fort Worth Hotel, in Texas, which has not been prosecuted, yet, he says, have sold oleomargarine as butter, and he has used it today in his talk? I just want to know under what department of the law.



W. B. BARNEY,
State Food and Dairy Commissioner, Iowa.

Mr. Flanders, of New York: I gave it only as an illustration, as some of the facts that exist, in connection with the handling of the product, to illustrate the way it is made superinduces fraudulent practice. I want to say that ten years ago, in the defeat of the ten cent tax, I opposed it in New York. Our side won out—we got four hundred votes against six. Mr. Knight went home and published the people were against the ten cent tax. Then I was misunderstood. We want oleomargarine sold if they want it—for just what it is to the people for what it is worth, but the question of what it is worth is a commercial question. As to Mr. Bryan's proposition, I will say, that nobody is advocating that I know of of throwing away that food. There is no way of doing it, because it would be declared unconstitutional. The only man that ever advocated it that I know of—he said—we will legislate oleomargarine out of existence, and I said—we cannot do it—and I said—we simply want to legislate the fraud out of it.

Dr. Caspari, Maryland: I would like to say a few words. I come from a small State on the Atlantic Coast, where the dairy industry is scarcely to be considered. We have with us a law, that seems to fit the cases as far as we contend is applicable. The use of oleomargarine is permitted as fully as butter, but we have this law—that every dealer, who sells, or any hotel or restaurant or boarding house using oleomargarine must declare that fact to the patrons in signs six inches in height on the walls, and it must be made known to the public "Oleomargarine used in place of butter." If we find that it is not on the bill of fare and we get the substitute, we prosecute them. The same thing is true of renovated butter, properly labeled, and when taken out of the large sixty-pound pails, which the Government allows to be labeled as "renovated butter," these individual packages should be labeled. We prefer the word "renovated." When they come to us, we say oleomargarine is just as wholesome as butter, and in that way we think that we have solved this problem to a fair degree.

Mr. Abbott: Do you require a notice in the hotels and restaurants stating whether they are selling distilled vinegar?

Dr. Caspari: No sir.

Mr. Abbott: If they are selling sweet corn or ordinary corn, do you require them to have a label?

Dr. Caspari: No sir.

Mr. Abbott: I would like to go on down the line. Now, what I am objecting to is that there is a requirement as to oleomargarine, but no requirement as to other products that have the form of still other products. Now, with all due respects to the States that have such regulations as that, that is what indicates to me that there is or has been, either intentionally or unintentionally, in this case I am thoroughly satisfied that it is unintentional on the part of this good doctor to do anything that would tend to interfere with the sale of this product. Now, if that is a specific law, that specific legislation works to the detriment of oleomargarine and is unfair and unjust. Why not make the laws general and cover other things?

Dr. Caspari, Maryland: Oleomargarine cannot be placed in the same category of butter, because it is not butter. Corn and sweet corn is all corn. Oleomargarine is a product by itself, and so is butter, and for that reason this distinction is made.

Mr. Woods, of Maine: Gentlemen at the time we had our meeting on Monday evening, I understand that the President being absent, that his paper was deferred. I think that it would be wise to have his paper presented. I, therefore, move that the president's address be received and be ordered to be printed in the same place of the proceedings as it would have been if he had been present.

This motion was duly seconded and passed by unanimous vote.

Adjournment.

The Fourth Day—Thursday, June 19

AFTERNOON SESSION

June 19th, 1913, 2 o'Clock.

Mr. Willard Hansen, of Utah, First Vice-President of the Association, occupied the chair.

The Chairman: Gentlemen—The Convention will now come to order. The Chair wishes to announce that Mr. W. F. King, of Indiana, will read to you the paper which was written by Mr. H. E. Barnard, of Indiana, on the subject, "Sanitary Food Law, and the Use of the Score Card in Sanitary Inspection of Food Producing and Food Distributing Establishments." Mr. Barnard, of Indiana, has written the paper, but he is not present at this Convention to read it himself. Therefore Mr. King has consented to read you the paper.

Mr. Allen, of Kentucky: I would ask Dr. King to yield to a motion I would like very much to make just at this time.

Mr. King, of Indiana: I will gladly yield to the gentleman.

Mr. Allen, of Kentucky: Mr. President and Gentlemen of the Convention—You, Mr. President, have acted as President in fact of this Association during this Convention. It has been the policy of the past few years to rotate that position. You have exercised responsibility of appointing committees; you have presided over us with great fairness—you have been, all except in name, president of the Convention of 1913. Therefore I want to move that the Commissioner from Utah, Mr. Willard Hansen, be elected as President of 1913, and be enrolled among the presidents of this Association.

Mr. Bryan, of Illinois: I move that the Secretary be instructed to cast the ballot of this Association for Mr. Willard Hansen, of Utah, as President of this Association. (This motion was seconded.)

Mr. Woods, of Maine (Temporary Chairman): It is moved and seconded that the Secretary be instructed to cast a ballot of this Association for Mr. Willard Hansen, of Utah, as President of the Association, from last Monday until the close of this Convention. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "ayes" have it, and the Secretary will please cast the ballot for Mr. Hansen as President.

The Secretary: The Secretary takes great pleasure in casting the vote of the Association for Mr. Willard Hansen, of Utah, as President of the Association, for the term commencing last Monday and ending at the close of this Convention.

The Temporary Chairman: Gentlemen—Mr. Willard Hansen, of Utah, is declared elected to the office of President for the term commencing last Monday and ending at the close of this convention.

Mr. Hansen, of Utah, in a few brief remarks, expressed his sincere appreciation and thanks to the Association for the honor shown him.

The President: Mr. King, of Indiana, will now proceed with the paper.

Mr. W. F. King, of Indiana, then read to the Convention the following paper, prepared by Mr. H. E. Barnard, of Indiana, on the subject:

Sanitary Food Law and the Use of the Score Card in Sanitary Inspection of Food Establishments

By H. E. Barnard—State Food and Drug Commissioner of Indiana.

IN the commercial world every detail of business operation is classified and indexed, and the information of the expert so made available for the entire organization. The present system of food control has departed utterly from its earlier form of semi-political, semi-police punitive regulation. It is now a business which more and more approaches in its method of operation, the business of the educator, and, as it has become a business, it is employing the methods of business houses, and the office of the food inspector is the better administered when his work, and that of his deputies, is comprehended by the data in his filing cases.

In the few years we have been meeting we have seen our work change almost completely. As I look back over our annual reports I think I can see the initial departure in the attempt of the food authorities to get away from the hackneyed subject of food adulteration and take on a larger field of usefulness. In his address on "The Score Card and Its Application to Dairy Inspection," made at the Jamestown Convention in 1907, Professor E. H. Webster, then Chief of the Dairy Division of the Department of Agriculture, pointed out the fact that the work of the inspector is actually the work of a sanitary engineer, although he said at that time, "sanitary science is still too new to have found a place in the curriculum of the school room, and those with whom sanitary officers and inspectors have to deal have never been taught its simplest elements." He established the following pertinent facts:

1.—Laws in regard to sanitation are the most important.

2.—These laws are the hardest to enforce.

3.—The reason is ignorance.

And he further gave us this axiom: "When the sanitarians disagree as to the proper classification and interpretation of truth, it is not to be expected that the layman will understand or have confidence in rules and regulations or the laws on which they may be based which govern the sanitary conditions under which dairy products must be produced or handled."

Appreciating the difficulty of classifying sanitary conditions in such a way that the layman will understand the facts required has lead to the development of systems of scoring. Six years ago Professor Webster said: "The standards for sanitary inspection have not as yet been well worked out." Although we have made much advance since he addressed us, that statement in part holds good today. We have made a splendid progress. The Federal Government has given us a score card for the sanitary inspection of dairies. The states have devised score cards to fit the various industries, and the health departments of many cities are now using score cards for sanitary inspection work which have much merit, but as yet it has not been possible to devise an ideal card. Let us, for instance, consider the score card of the Dairy Division of the Department of Agriculture, the card which has been drafted by experts familiar with conditions in all parts of the country after years of study of the problems of dairy inspection work. With this card you are all familiar. Many of you are perhaps using it. We use it in Indiana. In devising this score card weight was given both equipment and methods, the total score for equipment being forty, and for methods, sixty. Under the heading equipment is included the health, comfort and food of the cows; the location, construction, lighting and ventilation of the stables; the construction of utensils; the location and construction of the milk room. Under methods special attention is given the cleanliness of cows, of stables and milk-room; the care of utensils, and cleanliness of milking and in handling the milk. Points are given for proper cooling and transportation. In devising the score card it was assumed that smooth walls in stables, plenty of air and light, facilities for prompt cooling of milk, a

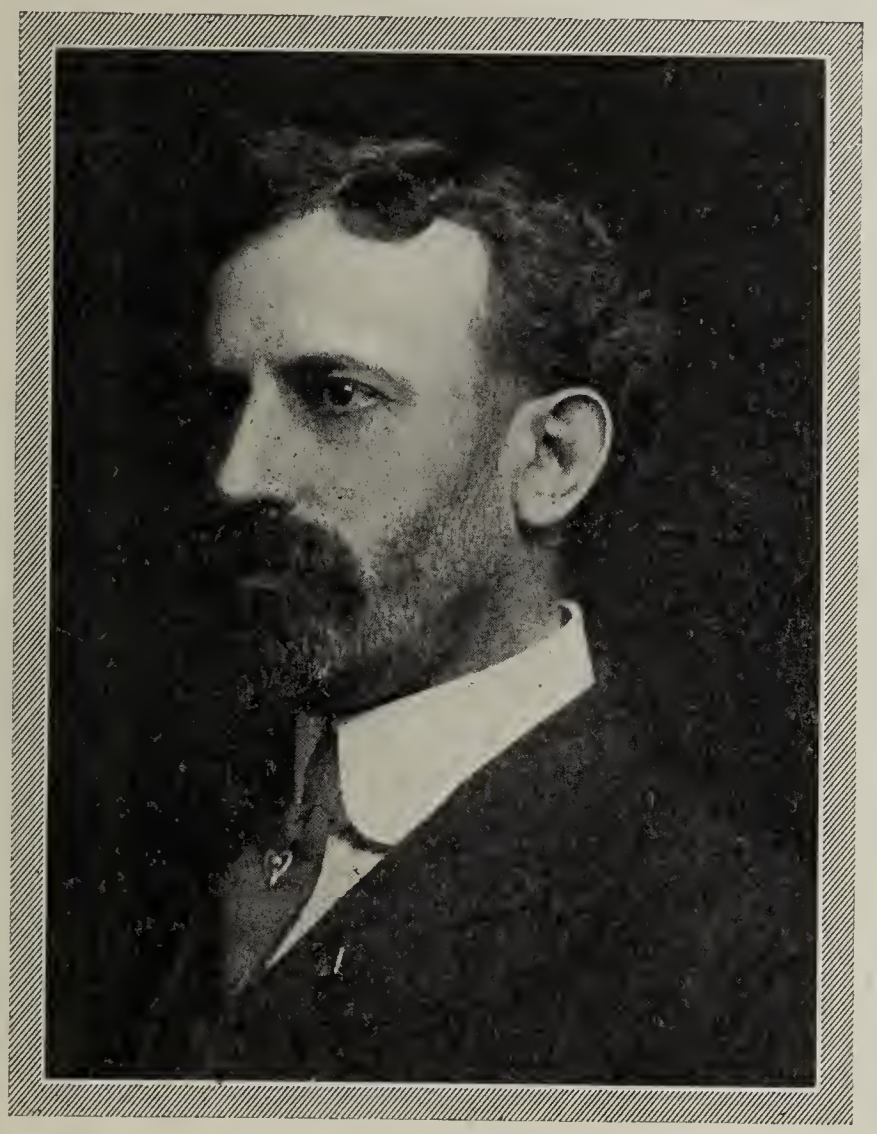
convenient and abundant water supply, the small-top milking pail, cleanliness of milkers, had a definite value in determining the quality of milk, and they were therefore given definite weight.

Brainerd and Mallory, in a bulletin of the Virginia Polytechnic Institute, have made "A Study of the Bacterial Count and Dairy Score Card in City Milk Inspection," which is of unusual value, and I take the liberty of quoting their work freely. They discuss the score card approved by the American Association of Medical Milk Commissions and the National Association of Dairy Instructors, and point out the faults, as they can see them, of this excellent card. They show that in the score card great consideration is given stable conditions, although it is evident that the bad effects upon the cow from unsanitary stable conditions are in more or less direct proportion to the length of time the cow is in the stable. Milk ranking very high from a sanitary point of view, which is after all the ideal to be kept in mind, can be produced with no stable or milk house, and yet, as they show, under the score card system as practiced in many cities, such milk would be rated very low, and, in some cases at least, refused. They show as illustrating this point, three dairies, one scoring ninety-six, another seventy, and a third seventy-six. The dairy scoring the highest was an ideal dairy, beautifully equipped, lighted and ventilated. The milkers wore special suits and used closed milk pails and the milk was prepared in a model milk-room. The dairy scored the highest of any supplying milk to the city, while the investigation was made, and yet the average bacterial count of this milk was more than three times as high as dairy No. 3, an old, dilapidated barn, with small windows, wooden flooring and stanchions, and more than twice as high as the bacterial count of the milk produced at Dairy No. 2, which scored far lower on the score card. As the authors point out, the personal habits of an attendant, whether cleanly or careless, may be of more importance in the sanitary production of milk than modern equipment. This vital fact is not taken into consideration and cannot be measured by the score card system of milk inspection.

Their work clearly proves the score card defective when used as a measure of the sanitary properties of milk. When milk is condemned because of the low score of the dairy, the inference is that it is undesirable or dangerous as a food. But the experiments made by the authors show that it is possible to produce good milk under conditions which would give a score below any effective standard which might be established. But they say, "in spite of these defects, the dairy score card has been and is now the most potent influence in raising the quality of the milk supply, and its use should certainly be continued until some better method is developed."

These last two statements, one condemning certain phases of its use, the other approving it as the best system at hand, furnish the keynote for my address.

The use of the score card, whether it be in dairy inspection, the inspection of slaughterhouses, meat markets, groceries, hotels, restaurants or miscellaneous food industries, gives an inspection force and the department chief a method of judging conditions. If a perfect equipment calls for a score of ten, proper light five, a cleanly toilet room ten, cleanliness of employes ten, the inspector has a means of comparing these factors of A's business with those of B's or C's, and his total score will show with mathematical precision their relative condition. But unfortunately, this score may be far from telling either the inspector or the proprietor of the shop what he wants to know, namely, is the food prepared and handled therein in good, sanitary condition. For just as in the dairy, with all other conditions ideal a single feature of the business may be so conducted that without reducing the rating sufficiently to condemn the place, as a matter of fact, it induces conditions incompatible with cleanliness. Let us assume that a bake-shop is properly located, constructed, equipped and cared for, that it is entitled on all of these points to the highest possible score, and yet it is operated by a syphilitic baker, or the place under inspection is a meat shop where the inspector totals a score of eighty before he reaches the ice box which he finds to be unsanitary in the extreme, or perhaps it is a grocery store where his total score is seventy-five until he reaches the back room, where he finds an open toilet, unventilated and filthy beyond description; all three of these places have earned a creditable score, and yet everyone of them is operated under conditions dangerous to health, in violation of law and opposed absolutely to the ideals for which we are working. The system of numerical scoring gives the inspector, as I have before stated, an arithmetical conception of certain conditions and with intelligent use will point out to the proprietor the conditions which are faulty. And yet by its use, the small storekeeper, whose capital is hardly sufficient to cover his stock in trade, who has no modern equipment, but who, in habits and method of work, is so conscientious and cleanly that his place is a pleasure, is scored down as against his competitor in the next block who, with more capital and a finer store, yet operates it in a slovenly manner. And so for this reason I have not yet brought myself to accepting, except in the single instance of dairy work, the score card method of operation. Since the passage of our pure food law we have used an inspection card, but instead of scoring conditions on a numerical basis we have summed up the results of the inspection under the grades excellent, good, fair, poor and bad. It may be argued that our method of grading is but little different from the score card under discussion. I feel, however, that it is of greater value than the score card for several reasons. In the first place, the average dealer is appalled by the statement that his place of business scores sixty out of a possible one hundred. He knows that the inspector is not satisfied with him, but he does not know what to do to get that other forty points. If he takes the trouble, the inspector can explain that he has scored off one point for an unclean apron, two points for lack of ventilation, one because of dirty towel, two points because of an unclean toilet room. In a vague sort of way the dealer will no doubt appreciate the value of such a system of scoring. We feel, however, that it is of more value to us in our work to have the inspector, after he has completed his survey of conditions, say to the proprietor: "Mr. Brown, I can only give you a grade of fair. Your place is not what it should be. You are not keeping it sufficiently clean. You should put a window in this wall, and repair that screen door, and when I come around next time if you have done all of these things and kept your place in other respects as clean as it is now, I am sure you will have earned the grade of good." We believe such inspection work is more productive of results than the use of the score card system, at least so long as our work is comparatively new. When the next generation of food handlers comes on, most of them will, no doubt, be ready for a more critical survey, and at that time the score card, developed



H. E. BARNARD,
State Food and Drug Commissioner of Indiana.

after years of trial and experiment, will give a more perfect service.

As we see it, another objection to the score card is that it takes too long for the inspector to record the data. A card is usually made out to cover a series of conditions. I have in mind a meat market score card in which certain values are given under equipment, for front shop, ice box, sausage room and conveniences; under methods, for cleanliness of employes, cleanliness of front shop, ice box, sausage room and toilet room. With such a card, totaling one hundred and requiring, say a score of sixty to pass, how would the inspector change the score to accord with the facts if the proprietor of the meat market had no sausage room and no apparatus save his ice box and meat block? The fact of his not having this department and apparatus would reduce his total score very materially, and yet the market might be entirely satisfactory in every way.

The score card is of unquestioned value as an educator, and when properly supplemented by specific instructions will point out definite conditions which need improvement.

The score card is defective when used as a measure of sanitary operation, for the dairy with the low score may produce an entirely acceptable milk from a bacterial standpoint, while the dairy with the very high score may produce an unsatisfactory milk. So the score card used indiscriminately will give too much attention to lesser details and total a passing score although conditions of major importance are not acceptable.

In this discussion of the score card I have endeavored to point out its faults rather than to condemn its use. I believe it will eventually become the ideal method of the inspector. It certainly furnishes the head of the department more specific information than the inspection blank to which I have referred, which even when carefully drafted, measures conditions in a general way rather than with mathematical accuracy. I believe a score card can be devised which will not be open to criticism, and I think this association, through whose efforts sanitary legislation has been enacted in nearly every state, can do no better work than to set about the preparation of a score card that will meet the needs of sanitary officers; that will give proper weight to all the circumstances of business operation; that will be intelligible to the proprietor, adapted for filing, and in every way a most effective instrument in the hands of the sanitary officer.

Scoring the quality of animals has furnished a fruitful topic for discussion for many years. One of the objections raised to judging or attempting to judge a single entity by dividing into parts and passing a judgment on each is that the chance of error is multiplied by the number of parts into which the whole is divided. This, it was held by some of those in attendance is the case in attempting to judge the quality of milk by making ten or a dozen single judgments that the thing desired to know was whether or not as a whole the plan followed produced good milk. And that is best determined by passing judgment on the milk itself.

The Score Card System of Food Inspection



By G. B. Taylor — Assistant Food Commissioner of Louisiana



My first experience in the score card inspection system, except with the dairy score card, was in the Indiana Laboratory in 1911. Mr. Barnard showed me his system for scoring. There were four cards of different colors for hotels and restaurants, groceries and meat markets, miscellaneous food supply places, and drug stores. These differed from the dairy score card in that numbers were not used. The inspections were covered by questions and graded with the following words: Excellent, good, fair, poor, bad. Our experience with the dairy score card had been so successful that we had already been looking for methods to score other places covered by State inspection. We, therefore, adopted these cards and used them without change until January, 1913. This period gave us time to give this system a thorough trial in State inspections. The general results were very satisfactory. Our experience with these cards taught us three things:

1. That this system should be increased to cover all kinds of inspections made by the State Board of Health.
2. That the system could be made more elastic by giving the inspector plenty of space for remarks.
3. That the questions instead of leading to an answer of "yes" or "no" could be so worded that the inspector would have to become familiar with the sanitary code before being able to use the card intelligently.

Taking these things into consideration, the system was further increased in January, 1913. We now have score cards for the following:

1. Dairies.
2. City Milk Plants.
4. Bakeries, confectioneries and ice cream factories.
4. Hotels and restaurants.
5. Groceries and meat markets.
6. Slaughter houses.
7. Miscellaneous food supply industries.
8. Jails.
9. Schools.
10. Public buildings.
11. Drug stores.
12. Barber shops.
13. Sanitary survey of towns.

These cards are uniform in size—5x8—but are of different colors.

The old card gave two or three lines for "Remarks." In the new cards under remarks, we print "Use Back of Card." Here we have a blank space of 5x8 inches. In this way items not fully covered by the questions can be added.

The old card gave such questions as these:

Are the floors clean?.....
Are walls and ceilings clean?.....
Are goods protected?.....
Are employes neat?.....

These questions can be covered with a "yes" or "no" and no knowledge of existing sanitary laws required. It led to carelessness on the part of the inspector. We have changed this by simply naming the topic, but assist the inspector by giving him the regulation number of the Sanitary Code or the Food and Drug Regulations. The questions above are changed as follows:

Floor (239b).....
Walls and ceilings (258).....
Protection of goods (259b).....
Employes (587).....

By these means the inspector cannot use the card unless he is familiar with the regulations. The inspector grades the cards and sends them into the central office. There they are gone over, and a letter is written to the owner of the place inspected giving him his score and telling what corrections to make to put his place in better sanitary condition.

Thus far this year we have made 3,500 inspections, and in nearly every instance have made use of the score card. Lately we have made a tentative score card for hospitals and sanatoria.

A good score card will cover the salient parts of a food industry, giving information which will convey correct ideas as to the status of this industry from a sanitary standpoint.

The score card system is valuable in that uniformity of inspection results; it is handy and practical in that a simple method for inspecting, condensing and filing is found.

Regarding the different systems of inspection great variety of opinion exists. It speaks well for the excellence of the National Dairy Score Card that it is the only score card universally adopted. It is to be hoped that a universal score card for other food industries will be devised. The percentage system has worked exceptionally well in dairy inspection; and in some places this system is used for all food supply places. The advantages of this system are that closer scoring may be done, and that small differences between the sanitary condition of food supply places may be noted. On the other hand, it is difficult to make the owner of the place inspected understand this system; and when results are published, numbers always require explanation. Again, unimportant points may be given the same value as important ones and fictitious results obtain. By wording the results the same accuracy will not be had, but on account of the simplicity of this system, the owner can comprehend instantly the score of his place and know how to correct insanitary conditions.

I believe with Mr. Barnard that the score card has come to stay, and with him also I should like to see this association go on record for the betterment and uniformity of the score card system of sanitary inspection.

The President: According to the program the next paper was to have been on the discussion of this subject by the Hon. Clarence E. Harman, of Nebraska. Mr. Harman is not present and, therefore, the subject is open for discussion to the whole Convention.

Mr. R. M. Allen, of Kentucky: After the little talk I made yesterday afternoon I did not have time to hear the objections, and one or two of the members of the Association, in discussing that paper afterwards along these lines, called to my attention that they possibly misunderstood the intent of it—for example, one of the Commissioners understood that I would have the field inspector trained in bacteriology. Of course, it would be excellent to have him trained as widely as possible, but I did not intend to convey the impression that he must be a bacteriologist. On this paper, I want to add just at this point of the proceedings some difference of opinion with respect to the relative value of the score card. I want to endorse what both gentlemen have stated—namely, the great importance of these score cards. They set out, or ought to set out, the items of method and equipment necessary to the conduct of a sanitary dairy or slaughtering house, or other food places; but as to whether that equipment is being properly used, I believe that we have the facts, and they show that it is impossible to determine that from the score card without a scientific examination on the part of the bacteriologist and members of the Board of Chemistry. In Lexington we scored the dairies in 1909, 1910, and 1911. The dairy scores in Lexington increased to some extent during those years. In 1910 we made a bacteriological investigation of Lexington's milk supply—that year—without following it up, as I outlined yesterday afternoon. Yet notwithstanding the careful scoring in 1908, 1909, 1910, and 1911 there had scarcely been any lowering in the bacteria count in Lexington, until the scoring in 1912, of the bacteriological examination, and I agree with that part of Commissioner Barnard's report which holds that with scores of these other places—and I have experienced it—that the product must be examined to determine its fitness. I don't, however, want to discourage the score card.

Mr. Flanders, of New York: I want to just add these words: As to having on the score card words instead of figures, my judgment is that this is an attempt to reduce to a mathematical accuracy something that is not reducible to that form.

Mr. Brown, of Tennessee: I was struck with that part of Commissioner Barnard's paper, that we do not get rid of the numerical score card except on dairies. Commissioner Allen's suggestion would seem to indicate that we would hardly be ready for them on dairies yet, inasmuch as we get very little benefit from the score card. Of course, anything that promotes cleanliness is good, but I doubt very seriously the feasibility of these bodies taking up the matter of the uniform score card on other industries. They are so diverse in their requirements that everyone would require a different card. And of course, as a matter of fact, the different branches would require a different score card. We could not rate a wholesale grocer in the same way that we do a retailer. The score card with the words on it has been used by us, and its chief benefit is to be derived when the inspector has had experience. The inexperienced man will certainly make mistakes, but after the man has been in the work for a few months he can go over the various items marked on it and take a comprehensive look over the store, and it is remarkable to see how close the different men will go on the same store at the same time—comparing their blanks after the scores have been made. For that reason I do not believe it would be a very good idea for us to take up the matter at this time.

Mr. Flanders, of New York: I want to add an instance in which we had a difficulty in New York. A man that I know of tried to produce sanitary milk. A man was sent to inspect the stable, and he made all the improvements that the first man suggested to him to make, and a second man was sent and he made criticisms, and this man corrected those things. Then a third man went into his place in a few weeks and gave him a mark of 53. Now we laid the blame on the proposition of the judgment of the man in trying to put down in figures something that could not be reduced to figures.

Mr. Winkjer, of Minnesota: Gentlemen, it seems to me that it is necessary to have what was mentioned here yesterday by Mr. Rawl, and that is that we must have the control of the milk situation. I think that the score card gives the methods whereby the proper milk can be produced, and then the control comes in there and keeps the milk supply at that particular point of quality. When that control shows that the work is not right, we touch on the spot where the score card indicates it, and it seems to be necessary to have the two go together. It seems to me that it takes longer because it is more thorough. It watches every part of the inspection in the use of the score card in the control of the other end.

Mr. A. W. Bruner, Indiana: We undertook to score the State Pure Food Law. One law might be particularly strong in one direction, and another in another direction, but the common result will show that all of the laws would average about the same score; but the value of the law is shown by the result that is brought about, and the results are brought about by the personality of the commissioner and the inspector enforcing the law. We had an experience two years ago in Indiana like this: We inspected under the Government score card system thirty dairies, and every day for thirty days we took samples from the thirty dairies, and we took the bacteriological count on these thirty dairies in the thirty days, and the result was that the dairy which showed the lowest score likewise showed the lowest bacteriological count. The dairy which showed the highest score showed next to the highest bacteriological count. The difference I account for in this way: The man with the milk equipment had at least ten acres of ground, and on that ground he had built, at his own expense, a barn to house fifty cattle, which cost him a thousand dollars, but he had everything down to such a sanitary point—the minute the milk entered the cooler he immediately lowered it to the lowest possible temperature. The other fellow, with all the money he could put in it, with a twenty-five thousand dollar equipment, had at the head of it a twenty-five cent man; but the man with the lowest score had a bacteria count of less than four hundred, and the man with the highest score had a count of four hundred thousand. It is the personality.

The President: Gentlemen—The next paper on the program will be a paper by the Hon. William C. Woodard, of the District of Columbia, on the subject, "Is Legislative Enactment of Food Standards Advisable?" Mr. Woodard is not present at the Convention, but we have with us Mr. Charles F. McKinley, of Illinois, who will read Mr. Woodard's paper on this subject to you.

Mr. Charles F. McKinley, of Illinois: Gentlemen, I think that the Chairman is under some slight misapprehension. I intended to speak on this subject, and I have had it written up. Therefore the paper I shall read is one that I have prepared myself, and was not prepared by Mr. Woodard.

Mr. McKinley then read the following paper on the subject: "Is Legislative Enactment of Food Standards Advisable?"

Minnesota Rate Decision.

The right of Minnesota and other states to prescribe reasonable rates for interstate traffic was this week affirmed by the United States Supreme Court in a decision in the Minnesota rate cases.

The court unanimously decided in favor of the states against federal control of intrastate traffic, the railroads thus losing their fight for the big principle involved in the case. The railroads had hoped through this litigation to shake off most of the burdensome rates established by the states on traffic moving wholly within the states, and to establish the control of the interstate Commerce commission in all cases where there is a conflict between it and state commissions.

The decision, regarded as one of the most important ever announced by the court, had been under consideration for 14 months. Railroad commissions from eight states and the governors of all of the states filed briefs in support of the states in the cases, recognizing that the principles involved affected them all.

Experts to Investigate Milk Shipments.

As the results of an investigation now in progress, the government may require a radical change in interstate milk shipments to cities. Experiments have demonstrated that it is practicable to supply cities with milk twelve hours fresher than now is customary. It is proposed to do this by taking night milk, keeping it through the cooler hours of the night and combining it with morning milk, and then making shipment. It is said that if the new plan is adopted it will go far toward solving the problem, and preventing the delivery of milk that is bacteriologically bad.

Is Legislative Enactment of Food Standards Advisable?

By Charles F. McKinley, Attorney
for the Illinois Food Commission.

MR. PRESIDENT and Gentlemen: Ever since I have been engaged in this food control work, I have been interested in the question of "Food Standards." From an administrative point of view it seems to me to be an extremely important question, since the establishment of standards for the various food products is one of the foundation stones on which we base the application of our food laws which forbid misbranding and adulteration.

I had given the general subject considerable thought during the past year, and when I saw the subject announced in the program for the convention I looked up my notes made from time to time, for the purpose of speaking to the question. I should much prefer to speak from notes, but for the sake of accuracy I have reduced what I intend to say to writing.

OBJECT OF STANDARDS.

I shall not attempt to give a set definition of the term "Food Standards," but will try to point out the principal objects in establishing such standards. Briefly stated, there may be said to be three principal purposes, as follows:

First. As a guide to the trade, that is the manufacturers and dealers, and to the consumers, as to what food control authorities will regard as normal and genuine articles of food under their respective names;

Second. To furnish a means or test by which to determine the purity and genuineness of food products; and

Third. To provide a rule of evidence upon which to sustain prosecution.

All of these purposes may apply in the case of a standard for a given article of food, or any one or more of them be applicable. A few examples may be in point. A standard prescribing minimum fat and solid contents for milk, is notice to the producer and consumer of what the authorities will consider genuine milk, while at the same time it furnishes a test to determine the purity of the milk. Aside from such standards for fat and solids, we all recognize the difficulty of determining whether milk has been sophisticated. And in case of prosecution, a prima facie case is made out by showing that the milk is below the standards prescribed. In the case of cider vinegar, the standard is intended as a means of determining and proving whether the vinegar is genuine or spurious. In the case of a standard for ice cream, all three purposes would hold true, but more particularly would the standard be a guide to the trade and the consumer as to what could be sold under the name "Ice Cream." The same would be true in the case of "extracts"; while a standard for black pepper would only serve as a means of detecting and punishing fraud.

NEED OF STANDARDS.

This brief outline of the purposes and nature of food standards only serves to show the importance of fixing proper standards for food products. In the absence of standards, where is the authority who shall say whether a particular food is normal, pure or genuine, or whether it is not? If we rely upon the trade, it may be that we will find a general consensus of opinion as to some products, but as to many others it may be impossible to reconcile the conflicting trade practices. Competition, greed or local conditions may have caused some to put out inferior articles under the name of genuine.

Many foods are now manufactured which were formerly made at home for domestic use, their ingredients and respective proportions then being fairly well fixed and recognized. But in the course of commercial manufacture, adulterants have crept in and the essentials in whole or in part omitted, while all the time the articles have borne the original names of the genuine articles. Saccharin as a sweetener in soft drinks and beef suet in lard are examples of this kind of adulteration. Many of these substitutions have been practiced for years; but I have never assented to the doctrine that a fraudulent practice may ripen into a legitimate one merely because it has continued for a number of years.

In my judgment the understanding which the consuming public have concerning an article is of importance in considering whether an article is true to its name, which is the real essence of a standard. Of course it is difficult to determine what conception the public have of a given article; but where it is possible to ascertain it with a reasonable degree of certainty, then it is all the more important that it should be crystallized into a standard and recorded for future guidance.

Nor would it be wise to leave it to food control officials to determine in each instance whether in their opinion an article of food were normal, genuine or pure. The folly of such a course, not to speak of the legal objections, need not be further discussed.

Recognizing the imperative need therefore that the consuming public should be protected to the extent that a given name shall represent a given article, and that when such name is used the ingredients shall be reasonably definite, food officials have agreed upon the establishment of definite standards to which foods shall conform, unless they are plainly branded to the contrary.

From the view point of the enforcement of the food laws it is highly important that standards should be adopted and promulgated. A person can only be prosecuted upon a definite specific charge, and a standard shows wherein the products are deficient, and at the same time furnishes a rule of evidence to sustain the prosecution.

OBJECTIONS TO STANDARDS.

Of course I am aware that objections have been urged against establishing standards. It is asked, how are we to determine what is the normal and genuine article? Different manufacturers use different ingredients and in varying proportions, and how are we to decide which is the genuine? And is it not a question of which is the superior article?

Now, the mere fact that it is difficult of determination in the case of any food is not a valid objection. Nor in my opinion is the fact that there is a wide variance in the ingredients or proportions of an article sold under a particular name, a valid objection to establishing a standard for such article. In fact, it is my opinion that such wide variation opens the door to fraud, and makes it more imperative that a standard be established, even though it be somewhat arbitrary.

It is further objected that the authority to make standards may be abused. Grant that in some instances they may be framed too strictly, they nevertheless operate upon all producers alike, and if the consuming public gets the benefit it is one tally in a string of zeros. But as a matter of fact any law can be made to work hardship and prosecution turned into persecution. Laws are not self-enforcing, and something must be left to the discretion and good faith of our legislative and administrative officials.

BY WHOM FIXED.

My remarks thus far have been mainly preliminary to a discussion of the subject under consideration—namely, "Is Legislative Enactment of Food Standards Advisable?" As suggested, standards may be established by embodying them at length in the statutes. Another way is by their adoption and promulgation by the appropriate official, or by a board or commission, pursuant to authority conferred by statute. Some states, I believe, have established standards by a combination of these two methods—that is, a provision of their statutes makes the standards of the U. S. Department of Agriculture the standards for such states. For the purpose of this discussion, this method may be included in the second method I have described. A third and somewhat doubtful method is the adoption of standards by a food official, under a statutory provision giving him power to make rules and regulations for carrying out the purpose of the act.

PRINCIPLES ON WHICH STANDARDS ARE BASED.

When we come to determine which of these methods it is more advisable to adopt, it is highly important that we consider the manner in which standards for the various products are determined, and the principles on which they are based.

In the "Standards of Purity for Food Products" adopted by the U. S. Department of Agriculture and promulgated in Circular 19 is a preface stating the principles on which they are based. These standards seem to have been very generally adopted by the several states, with the same statement of principles prefixed. The two paragraphs which are material to this discussion are numbers 6 and 7, as follows:

6. "The names of food products herein defined usually agree with exist-

ing American trade or manufacturing usage; but where such usage is not clearly established or where trade names confuse two or more articles for which specific designations are desirable, preference is given to one of the several trade names applied."

7. "Standards are based upon data representing materials produced under American conditions and manufactured by American processes or representing such varieties of foreign articles as are chiefly imported for American use."

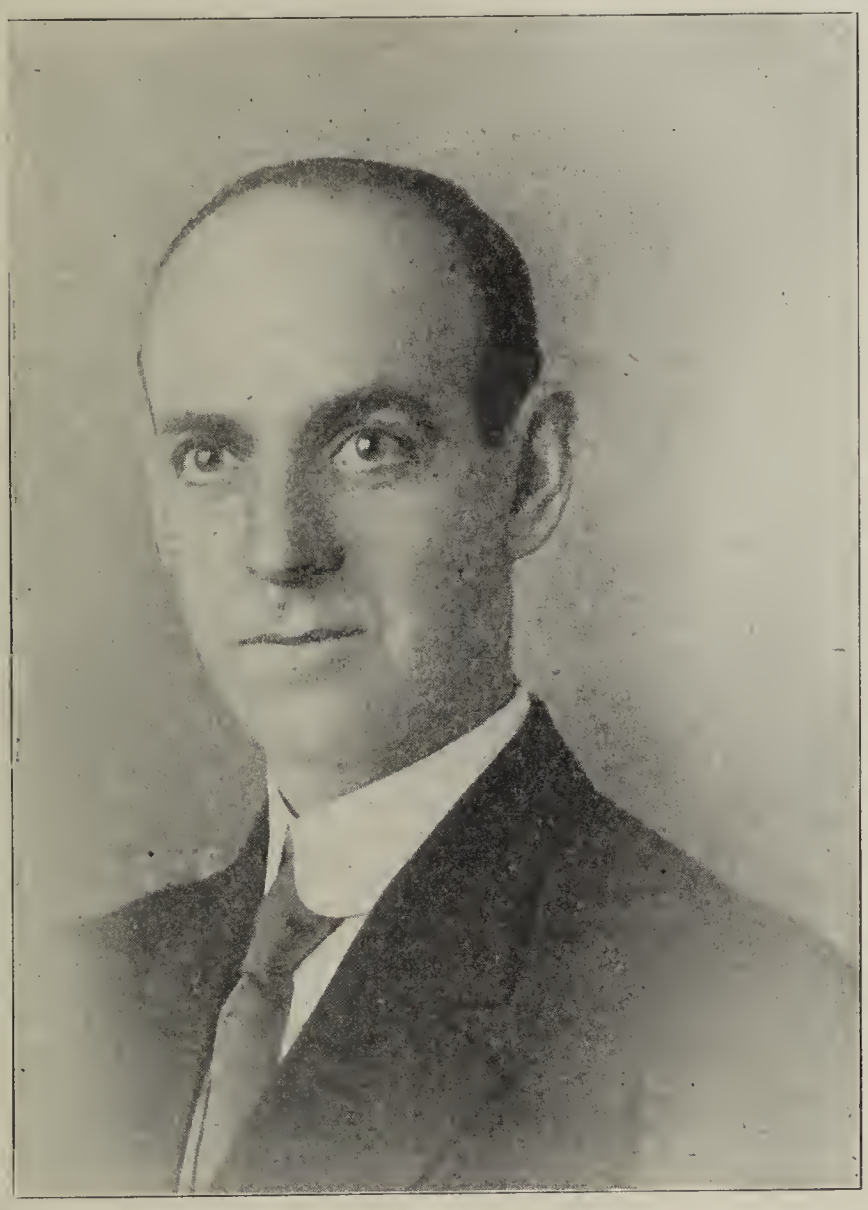
It will be seen therefore that in fixing such standards due regard was had to the existing trade usages, customs and conditions. Of necessity these considerations must have an important bearing upon the question of where a given standard shall be fixed. In this connection it must be borne in mind that there is a range of variation in some normal and genuine food products, and allowance must be made for this variation. Some products sold under a given name vary in their composition and ingredients, so that it is difficult to fix a standard of any service or value and not limit the ingredients in some way. Such a standard must of necessity be somewhat arbitrary. The exclusion of adulterants which have gradually crept into commercial food products also has to be considered. This is often a difficult question to determine, and no set rule can be established by which to decide. It is largely a question of fact to be determined from the particular facts in each case.

In addition to these principles, however, there are other elements which are important, and which I believe the committee had in view when they recommended these standards. The first of these is the history of the particular article of food. If the standards are to stand the test to which they will be subjected, it is very essential that the history of the various products be traced back for a reasonable period. The nature and ingredients of an article in the past may have been of such a fixed character as to be of controlling effect. It is also true, however, that the character of an article may have been undergoing gradual changes, an evolution as it were, so that its early character could not be taken as a standard. Nevertheless, this early history may well form a background to be kept in view in establishing a present standard.

Another element to be considered, and one to which I have already referred, is the understanding or conception which the consuming public have of a food article. Frequently this differs from the standard, or, more properly, the usage, which the trade has established, and probably arises from the fact that changes have been made or substitutions practiced without notice to the public.

I think it will be conceded that our food laws are intended primarily for the benefit of the consumer. This was very clearly pointed out by the U. S. Supreme Court in its recent decision in the Wisconsin glucose case. Therefore the public understanding of an article should be an important element in fixing a standard therefor. Judge Sanborn of the Federal Circuit Court at Chicago, in the "Mapeline" case, and former Attorney-General Wickersham in his Canadian Club whiskey opinion, lay considerable stress on this element of the public understanding concerning an article.

It will be seen therefore that all these principles or elements must be taken into consideration in fixing standards, giving to each its relative weight according to the facts and circumstances in each particular case. The resulting standard should be a composite definition, as it were, of the article in question, including what is best and excluding what is objectionable as far as consistent with the facts. A standard is nothing more than the general understanding ascertained and crystallized into a definite and specific meaning.



CHARLES F. McKINLEY,
Attorney for the Illinois Food Commission.

LEGALITY OF STANDARDS.

It may not be out of place to say a word concerning the legality of the several methods of establishing standards. Of course legislatures have the power to make standards by enacting them into law, and they are presumed to be valid and correct. A court would have the right to declare them invalid only when it could say that as a matter of everyday knowledge any standard was clearly unreasonable or materially at variance with the facts. It would not be a question of hearing evidence, expert or otherwise, to determine whether the standard were correct, but the court would be obliged to say that it was clearly and palpably wrong before it could declare the standard void.

As to standards established by officials or commissioners, it is my opinion that in the absence of some constitutional impediment legislatures have the right to empower proper officials, boards or commissions to make such standards for food products. I think this power should be expressly conferred by statute, and that when such standards are adopted they should be promulgated in a manner defined in the statute. This promulgation might be by publication in one or more newspapers of general circulation throughout the state, and by the publication and distribution of copies of such standards. Standards thus established, I believe, would be held to be prima facie correct, so that the burden of overturning them would be on the party who attacked them. The method of adopting by statute the standards of the U. S. Department of Agriculture is only a modification of this plan, and I believe is free from legal objection if properly enacted.

I am aware that this position may be questioned by some lawyers on the ground that it is a delegation of legislative powers. I have treated the subject more from an administrative standpoint than from a legal one, and have not made such an exhaustive study of its legal phases as to defy contradiction, but I believe the above views are sound and would be sustained by the courts.

The power of officials and boards to fix standards must not be confused with the power frequently conferred by the several food laws to make rules and regulations for carrying out the purposes of such laws. It is sometimes claimed that such authority gives to food officials the power to make rules and regulations having the force of law, and their violation constitutes a crime. Such provisions in my opinion are of very doubtful validity. I am aware that the Supreme Court of Louisiana and some of the Federal courts have sustained the validity of such rules, but the special reasons which existed in these cases are absent in most states.

WHICH METHOD ADVISABLE.

Having now considered the object and nature of standards, the need therefor and their advantages, the principles on which they are based and their legality, the manner in which they may be adopted, and having a general view of the question, the question then arises which method of establishing such standards is more advisable. In my opinion the method by which

standards are adopted and promulgated by a proper official or commission pursuant to express authority given by statute is to be preferred.

In the first place I think the difficulties of enacting equitable standards by statute recommend the other method. A legislative committee is not calculated to make that patient and intelligent investigation of a long list of schedules that an official or commission constituted for the express purpose would make. The pulling and hauling of conflicting interests in the usual legislative body is not conducive to a scientific or equitable adjustment of schedules for a standard. The investigation of a single food product may take months of patient work and investigation, and can be more intelligently done by some one specially constituted to do the work.

The legislature is only in session for a few months and is crowded with business, while under the other plan investigation may go on continuously.

In discussing the principles on which standards are based, we saw that consideration must be given to the various elements of controlling force. The investigation and study which would be required to arrive at scientific and equitable schedules would be out of question for a legislature to make under ordinary conditions and circumstances. Any standards adopted therefore must be mainly those submitted to them by food officials and enacted bodily into law. If the standards prepared by food officials are to be transformed into law, would it not be better to give to these same officials the power to declare the standards under proper safeguards?

Again, it may be advisable to change standards from time to time, or to add new ones to the list, and the method of adopting by official or commission is more elastic, and enables such changes or additions to be made without waiting for the next session of the lawmakers.

I further believe that the method advocated is more conducive to uniformity in standards in the several states. Through this association and by personal contact the food officials of the several states are in touch with each other, and are able from time to time to make needed changes or additions to the standards of their states. Uniformity, as I understand, is one of the cardinal principles of this association, and uniformity in the standards of the several states can best be effected under the plan I advocate.

There are a few products, however, the standards for which by common consent have been enacted into law. Milk and cream are examples of this class. A few products which do not vary from time to time and which are of definite character might be written into the law without any violence to the principles contended for.

The Illinois Dairy and Food Law provides a method of establishing standards which is a good illustration of the plan I have outlined. Section 1 of this law provides for the appointment of a food standard commission for the purpose of determining and adopting standards of quality, purity and strength for food products, to consist of three members, one of whom shall be the State Food Commissioner or his representative; one of whom shall be a representative of the Illinois food manufacturing industries; and one of whom shall be an expert food chemist of known reputation. Sections 39 and 39a provide that articles of food shall conform to the definition and analytical requirements of the standard adopted and promulgated from time to time by said commission, and that any foods sold or offered for sale which do not conform to such standards shall be illegal.

The President: Gentlemen—The next paper will be a discussion on the paper which you have just heard read by Mr. McKinley. This paper will be read by Mr. Sanford C. Dinsmore, of Nevada.

Mr. Sanford C. Dinsmore, of Nevada, then read the following paper:

Is Legislative Enactment of Food Standards Advisable?

By Sanford C. Dinsmore, Commissioner in Charge Food Control, Nevada.

THE State Legislature must pass on all food standards in order that they may have an authority in law. The manner in which they pass on them is entirely within their power. They can adopt and pass on each and every standard separately, they may adopt those standards proclaimed by the Secretary of Agriculture or they may empower some competent commission or body of men to establish standards for food products, which standards, by the power vested in the commission by the legislature, must be upheld by the courts of the State.

Should the Legislature be asked to fix and adopt standards of purity, quality and strength, there is a possibility of having the standards reduced or lowered to a ridiculous point where they would have no force or effect, and, in so far as the consumer was concerned, it would be as well to have no standard at all. A carefully prepared schedule might be advanced in the legislature, and I believe it would not be a very difficult matter for manufacturers, if the proposed standards did not meet with their approval, to prevail upon that body to have the standards lowered, for the average legislator is not qualified to say what a food standard should be, nor would he take the time necessary to give the matter due and careful consideration and would be more inclined to take the manufacturer's view on the matter.

Even if the schedule were passed without any alterations it might, and probably would, result in a different set of standards in each individual state, in many particulars at least, and with such conditions existing the manufacturer, wholesaler and jobber would be subjected to no end of trouble in preparing and labeling their goods to meet the requirements of the different states.

Further it would permit a conflict of legislation, on certain subjects, and the question, as a matter of course, would arise as to which was supreme. The United States Supreme Court has repeatedly held, that on all questions upon which both state and the United States have the right to legislate that in the case of a conflict on any subject the state law must give way to the established federal regulations or act of congress. It is wholly immaterial under which class of powers the conflicting statutes or authority falls. There is also another point to be considered in fixing standards and that is the expense and time involved in a careful study of a particular food product before a standard that would be fair and reasonable should be advanced for legislative consideration. A food department with a small working force could not attempt such investigations and carry on the regular inspection work required of them at the same time. To maintain a commission to conduct such investigations and propose standards in some states at least, would be out of the question.

An objectionable feature of having food standards read into the law was mentioned by Dr. Brown in his address before this association last year when he said that such a condition tends to tie down the executive to hard and fast rules, is so flexible as to interfere with due progressiveness and may be as thoroughly covered by general laws.

To my mind there is only one point in favor of having food standards read into the law, even if it were possible to obtain uniform standards in all the states, and that is as a measure of evidence in court. There could be no question whatever about the legality of such standards, while a standard not read into the law must be sustained on trial in

court as being equitable and correct in order to give them legal weight and value.

The question naturally arises what validity does a standard, not a part of the statute, have when a case involving the standard is brought to trial? In the first place the United States Constitution confers upon congress certain powers, expressed and implied. Among the latter is the power to regulate the subjects of foods and drugs, as well as in the expressed powers, i. e., the sole right to regulate interstate commerce, which necessarily includes the commercial regulation of foods and drugs. It also, by reason of not withholding the power from the states, necessarily permits the states to likewise legislate within their own boundaries upon the same question.

Owing to the impracticability of a legislative act or statute to embrace within its provisions the standards for all foods and drugs, states as well as congress have resorted to the principle of delegating to subordinate individuals or bodies the power and authority to fix and establish these standards, which action has given rise to the question of the validity of those statutes, and it has been contended that they are invalid upon the ground that it is an unauthorized delegation of legislative power.

This question has been met and decided by a number of courts in favor of the validity of such statutes. For instance, in the case of Buttfield vs. Stranahan, 192 U. S. 470, 491, 496, which seems to be very much in point, wherein the constitutionality of an act of congress delegating the power to the Secretary of the Treasury to appoint a board of seven tea experts to prepare and fix standard samples of tea, was involved, the United States Supreme Court held the act was constitutional and sustained the right of the board to fix such standards. The efficiency of an act, as a declaration of legislative will, must, of course, come from Congress, but in an act on this subject the office and authority of fixing the standards may be left to such other agencies as congress may designate in the act, and state that when so fixed they shall be deemed the official standards. The point brought out in the paper presented by Mr. Wallis this morning and embodied in the proposed resolution, covers this point exactly. When the proper amendment is made to the federal food and drugs act, the standards adopted by a standards commission, the federal board of food and drug inspection, or whatever body or individual congress chooses to delegate that power, those standards must have the same standing as the tea standards in the case I have just cited.

The next point to be considered then, is what validity would the standards adopted for the enforcement of the federal food and drugs act have when adopted by the state, but not expressly enumerated in the statutes of the state. Statutes, which provide that the standards of foods and drugs shall be those proclaimed by the Secretary of Agriculture, have been sustained in the courts and make them the standards in such state.

The laws of the State of Nevada provide such a rule of evidence, and while not specifically designating food standards, it clearly implies as much, and in every instance when the question has been raised in any of our court cases we have had no difficulty in establishing the standards proclaimed by the Secretary of Agriculture as the official standards of the State.

In my opinion, the principle or practice of having the State Legislature fix and establish food standards by expressly enumerating the same within the provisions of the act, is not advisable, but the standards already established and proclaimed should be adopted without attempting to read them into the statutes. The latter method eliminates any possibility of the adoption of unreasonable or conflicting standards. It is giving all parties concerned a fair and square deal. It tends toward unity of action and uniformity of law, by which only the best results in food and drugs control can be accomplished.

The President: Gentlemen, Mr. William D. Saunders, of Virginia, will now read a paper prepared by him as a further discussion of this subject.

Mr. William D. Saunders, of Virginia, then read the following paper as a discussion of the subject "Is Legislative Enactment of Food Standards Advisable?"

Is Legislative Enactment of Food Standards Advisable?

By William D. Saunders, State Dairy and Food Commissioner, Virginia.

In the case of a great many food products there is no knowing what they are unless they are required to be sold within certain limits as, for instance, milk. This valuable food product can be so easily manipulated that it is almost impossible to tell what it is, and unless some standard had been adopted the producer who wished to do so could furnish the consumer with a product of very low grade. All the time I refer to the easy manipulation of the butter fat content of this product and in view of the fact that milk is produced anywhere from 2% butter fat up to 6% and higher, it might be a difficult matter to determine whether or not a 2% milk was a legitimate product or not. The same would be true of butter if the water content were not limited or butter made to comply with a standard, and also cheese might be made of milk from which a portion of the butter fat had been removed unless cheese had been required to be of standard quality as to butter fat not lower than a certain specified percentage of butter fat.

The same is true of a great many manufactured food products. Ice cream is another notable example. In Virginia we have a specific law requiring amongst other things that ice cream be made of not less than a certain specified percentage of fat.

What has been said in connection with milk and milk products will apply equally to extracts.

These preparations should contain definite amounts of the essential oils to be called extracts and unless this is the case they should be proceeded against as adulterated. The question of standards in some cases is not such an easy matter to deal with, but education and tolerance of more or less wide variations at first to be gradually brought within narrower limits would probably be the best method to pursue in such cases. There is no question but that legislative enactment of food standards must be looked to to finally place our food products in a class that will fully protect the consumer as well as the producer. The producer of the best food products cannot expect to maintain himself when his competitor places before the public something that looks as good, tastes as good, and which the average consumer cannot determine what difference there is if any as between it and something similar which may be offered him at a higher price. Under such conditions the consumer always buys the lower priced article and if he were in a position to compare the two he might find that the apparently higher priced article was cheaper than that offered at a less price in view of the fact that it contained more value than what was offered in competition and at a less price.

To sum up, it would appear that all food products that might be susceptible of wide variation should be allowed to be sold only under a distinctive name with a narrow variation of those ingredients that might be changed at the will of the manufacturer or manipulator.

In cases that might not admit of being dealt with without some difficulty, this might be avoided by allowing a somewhat wider variation of those ingredients that might be brought into question. In all cases I would think the good judgment of the commissioner should be brought into play.

Mr. L. M. Tolman, Washington, D. C.: I have in mind certain of the difficulties of establishing certain actual standards in such a way that they can be exact. I think that my experience, as a general rule, in making the standard which could be enacted into the law should be limited to the definition of a product, or to the limiting of the valuable ingredients of the product. I think that there has been a great tendency in the enactment of standards to incorporate into them analytical methods and determinations, and I think that all who have had experience as chemists know that such standards are exceedingly objectionable and oftentimes offer a direct guise to the manufacturer who desires to manipulate his products. In the case of the standards, as they now exist in Circular 19, for a number of products—as, for instance, the product of cider vinegar—I think the experience has been to convince them that those standards have advanced the cause of cultivation a great many years

over what it would have been if that standard had stopped with a definition, and, possibly, a standard of acid strength. I believe that there are certain things which can well be included in a standard, as, for instance, the limit of sand in certain spices. But the moment that any standard includes any figure, which depends upon methods of analyses or things of that kind, those standards are going to, sooner or later, get the man that enforces the food and drug acts into a bad way. I believe that it would be a very much more simple thing to enact standards, if we would limit ourselves to defining the product and giving, if necessary, the limits of the valuable ingredient which make up that product, and then lay the question to the advancement of chemical scientists to determine whether or not that product is what is defined in the standard.

"How Great a Variation from Fixed Standards of Food, Drug and Dairy Products, if Any, Should Be Allowed Without Condemnation?"

Mr. M. E. Jaffa, California: Mr. Chairman and Gentlemen of the Convention: Before talking upon this subject, I would like to make an announcement that I received a telegram to the effect that the Governor has signed the Cold Storage Bill, so that now we have a Cold Storage Law for our State. We are not absolutely sure, but we confidently expect to succeed with the Shelly Amendment to our Drug Law, and the Gould Amendment to our Food Law, but we are not certain of that.

Coming to the question, I would say that I am not going to discuss the value of the standards. We have the standards, and to some extent they are a great help. The question of variation, according to my mind, cannot be answered categorically. In my opinion, however, there should be incorporated in the rules and regulations of the law a provision to the effect that a reasonable variation should be allowed, and the judge of what a reasonable variation should be should be the executive in charge of that work. He should be willing to assume that responsibility, and should find out what should be a reasonable variation. If, in his judgment, the reasonable variation is zero, then no variation should be allowed. If some ought to be allowed, then probably that variation should be allowed by the court. Methods and technique differ, and there would be a chance for dispute if there was no provision for any reasonable variation. Then the nature of the material has to be considered. Is it a food or is it a drug? The simplicity or complexity of its manufacture, the importance of the ingredients, the nature of the standard or the declaration on the label whether a maximum or minimum for the ingredients referred to. Again, in the enforcement of this work we must take into consideration the probable court action, and it is far better, we think, to temporize and accomplish the end by education than it is to try to force a prosecution and then lose a case, because every case lost hurts the movement in general. If there was a permanent variation allowed then there is a great deal of opportunity for fraud in a good many different compounds and beverages. As a further advantage of the reasonable variation, we might say that we have to consider the intent and result, and perhaps that is best brought out in the case of milk. In our standard the limit of fat is 3 per cent. That is low but it is the standard. If we find a milk of 2.9 per cent, then we know that that milk has been watered, and the man should be prosecuted. In this case it is the intent to defraud the public, and no variation should be allowed, and the offender should be punished. Again, we should consider the nurture value of the ingredients, as in infants' food. There is a question whether any variation should be allowed at all, and furthermore, it appears to me that when the standards for manufacturers' goods indicate the minimum, as they do in a good many of the standards, then no variation should be allowed at all. The reasonable variation in that case is the algebraical x, because the manufacturers try, and do, work towards the production of food in which this minimum is their maximum, and no variation should be allowed, and because manufacturers so make their product that there should never be any excess of the ingredient in question to allow for difference in methods of analysis. In cases of manufactured goods, where the standards are declared, I should advocate no variation whatever. This is in the case of foods. These are a few of the reasons, which I think enough to provoke a discussion, and I would say that I believe in the incorporation in the law of a statement to the effect that a reasonable variation should be allowed, and the executive in charge be made the judge.

Mr. Potter, of Connecticut: I wish to take exception to one statement that Mr. Jaffa made. Of course, his discussion of this subject is to be published, and I do not think that this statement ought to go out in publication. That is to say—if a certain analysis is reported, which is quite low and the executive says that that is Holstein milk. I used to be an operator of Holstein cows myself, and I know that there are many of that breed that give milk low in butter fat, but to say that all milk that is low in butter fat is the product of the Holstein cow I should think would be erroneous.

Mr. Jaffa, California: If I mentioned that, I meant to say that it might be.

Mr. Charles D. Woods, of Maine: I wish to agree most emphatically with the first and last statement of the gentleman from California. I think that the worst thing that we can get into our law is indefiniteness, and if we are going to put a variation into the law, we will never be able to accomplish very much with it. The first law we had had to do with food, and we found it impracticable. A court will always make a leeway, and consequently, we don't want a leeway in the law, expressed or allowed by interpretation. Of course, this will vary with different commodities, but how much will it vary with the different commodities? The United States Department has embraced that situation. The United States will not prosecute if—in the case of cotton seed meal—it is referred to as prime meal. The result is that there are firms today in this Southland—in Memphis, that are buying prime cotton seed meal and selling choice cotton seed meal, for all they know is that if they are tripped up, they will pay fifty cents per unit to the man that had bought it, and the United States Department won't touch it. When a man says that a thing is a minimum—if I understand English—minimum means the lowest, and when a man says that, but carries 41 per cent in his meal, as is true in the case I have mentioned, we must consider how much allowance we have got to give for our methods of ascertaining the fact, and if we can tell within one-half per cent, and if our laboratory methods are good enough so that Mr. A. can get the same results as we do, if a cotton seed meal carries only 40.5 per cent, and we are sure of our grounds, the man should be prosecuted. If the courts are such that on a minimum guaranty, that I guarantee to give a dollar, and I give anything over ninety cents, that I should not be prosecuted therefor—the courts need education—if that is the position they take—which our friends in the United States Department of Agriculture have taken on food stuff. We are not merely protecting the consumer, but the dealer. We stand as the umpire in this game between the producer and the distributor, and the retailer, the consumer and the purchaser's interests are our interests just as much as the consumer's, and it is a mighty unfair advantage—when a farmer in Memphis can sell prime cotton seed meal for choice, and the honest man, when he sells choice cotton seed meal—he must state it. It is not merely a question of prosecution for the protection of the public, but there comes into this also the question of a fair protection to business interests. Any inspection law badly enforced is the worst thing that the honest business man is up against, and consequently, this question of variations comes in mighty important, but when I am supposed to give one dollar I have to give 100 cents. This whole thing seems to me to hang on this variation. We have got to make them live up to the standards. All our standards imposed are minimum; we have never made a law which gave the best possible food. But I think it would be very wise for us to get the Courts to understand that minimum means the lowest.

Mr. W. M. Allen, North Carolina: Fortunately for me and for you, Mr. Woods has said about all I think necessary to say and anything I would have had to add to it would be exceedingly tame. We have had this experience in North Carolina: We have an Act which provides for standard weight packages of flour, and in enforcing that law, we often find that there is a slight variation where the package is put up by what we believe to be honest, straight millers. We do not find that they vary much at any season of the year. When we first began to seize shipments of short weight, the millers claimed that it was due to a loss by evaporation through moisture. We hardly thought that the loss could be as much by evaporation as they claimed, and so we purchased quantities of flour milled at various parts of the state; we weighed these packages about twice a month during this entire year, and we found that the variation in bags of flour, which we recognized were ninety-eight pounds—was less than three-quarters of a pound. The variation from the very hottest

weather was not greater than three-quarters of a pound in 98-pound bags. In the smaller bags, the proportionate variation was slightly larger, but we did not find that the variation was over four ounces in twenty-four pound bags. With that experience, since that time we have seized all flour that we have found running that much or more short. We called his attention to that, but while we have not prosecuted anybody yet under that, we will probably have to do it, but we make the dealer refill the bags to standard weights before we let him sell it—that is, if a twenty-four pound bag is as much as two ounces short. We found a shipment in the State, shipped by a mill in Tennessee, and this was in twenty-four pound bags, and it ranged from a pound to a pound and a half short. We seized it under the State law, and invited Uncle Sam to turn it over to him.

Mr. Tolman, of Washington, D. C.: I cannot hardly let what Mr. Woods said go by without saying a few words on that point. I do not remember any particular instance where the Department refused to bring action at his request, but I do know this—that we have brought prosecutions where the variation was very much less than that, if we had sufficient evidence. I think that it has been a rule of the Department that one sample does not necessarily represent the output of a manufacturer, and that where a variation has been shown from the standard, that it has been the universal rule to obtain a series of samples so that when we went into Court we had the evidence necessary to make the prosecution stick. I know this—that the Department has yet a rule of that kind to apply to products of that kind. There may have been an instance.

Mr. Woods, of Maine: I have a general letter to that effect.

Mr. Tolman, of Washington: In answer to that, I will say that within the last few years we have brought a number of prosecutions on very small variations and intend to bring prosecutions, if the evidence is sufficient. That is the only answer I can give.

Mr. Ross, of Alabama: In connection with what Mr. Tolman has said, I would state that a case came up not long ago in our Department, in which a sample of syrup showed up a water content of somewhat above the standard, and as this was an interstate shipment, before taking up the case with the Federal authorities we procured several other packages of that goods, and, as two or three other packages of the goods in the same shipment came up to the standard, we decided that it was best not to make a case on the showing of that one sample.

Mr. Woods, of Maine: That would be covered by the man being sure of his premises.

Mr. J. F. Tilford, Kansas: I would like to hear someone say something about this in relation to drugs—as to whether the product is below or above the minimum standard. I would like to have that point discussed by someone.

Mr. Bryan, of Illinois: Gentlemen, before we get to drugs, I would like to state that I arose for the purpose of taking issue with Mr. Woods. The Department did, at one time, have a rule that he mentioned, but it has recently been called to my attention that that rule had been changed, and that allowances in variations of stock foods had been very much reduced, and that these variations which they allowed were very materially less than ten per cent, but I judge, from what was told me, that they were such as would be controlled by the inaccuracies of analyses, and I don't think that we want to have any mistake about this. With reference to standards, there is no official person who has been deprived of the power of using his discretion with reference to bringing the prosecutions under the law which he is enforcing, and he should use that discretion in every case, and take into consideration the particular facts which apply to that case, and should allow reasonable variations, but to state that there must be a reasonable variation, and to go into court with that written on it, you will have to show that that is something more than what they could show was a reasonable variation.

Mr. Tilford, Kansas: I would like to hear Dr. Caspari on the subject which I have mentioned.

Mr. Caspari, of Maryland: Since it is the desire of those present I will be glad to make a few remarks on that subject. I might say that this question that Mr. Tilford has asked is somewhat in line with the possible action of the association regarding the sub-standard clause in the Federal and State Laws. At the present time, I believe that quite a number of State Officials, in connection with the examination of pharmacopoeia products, have taken the position that a slight deviation from the pharmacopoeia standard is permissible, under conditions which make it apparent that the difficulty is not within the keeping of the manufacturer at all times. I will mention one or two instances: One of them is Doran solution, a one per cent solution, and as all chemists know, is subject to continuous oxidation, and hence, it would seem but fair to make a slight allowance there, and the rule which we have adopted in Maryland is to permit a deviation of as much as ten per cent. I know that this looks large, but it is not so large. There are other instances too. The committee having in charge the proposed laws of tolerance limits on drugs, when the report is made next year, will perhaps submit a list of variations which will seem reasonable, and easily within the reach of everyone, manufacturer and retailer. I think that we will then have something by which the Association will be guided in matters of that kind.

The President: According to program, the next order of business will be the Report of the Committee on Resolutions. Mr. Abbott of Texas, the Chairman of this Committee, will read this report.

A Delegate: Mr. Abbott is not in the room at present; he has gone downstairs.

The President: Gentlemen, Mr. Abbott, the Chairman of the Committee on Resolutions, is not present at the convention just at this particular time, and we will therefore pass that order of business for the present, and take up the next, which will be the reading of the report of the Committee on Credentials.

REPORT OF COMMITTEE ON CREDENTIALS.

Your Committee on Credentials have carefully considered those presented and offer the following list of states and their officers as those entitled to vote under the constitution:

ALABAMA.

B. B. Ross, state chemist.

C. H. Billingsley, food, drug and dairy clerk.

CALIFORNIA.

M. E. Jaffa, director of state food and drug laboratory.

CONNECTICUT.

Hubert F. Potter, dairy and food commissioner.

FLORIDA.

R. E. Rose, state chemist.

GEORGIA.

R. E. Stallings, state chemist.

IDAHO.

James H. Wallis, state dairy, food and sanitary inspector.

ILLINOIS.

T. J. Bryan, state analyst.

Charles F. McKinley, attorney.

Albert Erickson, chief clerk, State Food Commission.

INDIANA.

W. F. King, assistant secretary, State Board of Health.

A. W. Bruner, chief food and drug inspector.

IOWA.

W. B. Barney, dairy and food commissioner.

J. R. Chittick, state chemist.

KANSAS.

J. F. Tilford, assistant chief food and drug inspector.

KENTUCKY.

R. M. Allen, head of food and drug department.

J. O. La Bach, state food chemist.

John W. McFarlin, inspector.

LOUISIANA.

George B. Taylor, state analyst.

MAINE.

Charles B. Woods, director of stations.

MARYLAND.

Charles Caspari, Jr., commissioner of food and drugs.

Wyatt W. Randall, assistant chief of Bureau of Chemistry.

MICHIGAN.

James W. Helme, state dairy and food commissioner.

F. L. Shannon, state food chemist.

MINNESOTA.

Joel G. Winkjer, dairy and food commissioner.

MISSISSIPPI.

William F. Hand, state chemist.

MISSOURI.

William P. Cutler, state dairy commissioner.

F. H. Fricke, food and drug commissioner.

NEVADA.

Sanford C. Dinsmore, commissioner, state food and drug department.

NEW YORK.

George L. Flanders, counsel, Department of Agriculture.

NORTH CAROLINA.

W. M. Allen, state food chemist.

NORTH DAKOTA.

E. F. Ladd, food commissioner and state chemist.

OHIO.

S. E. Strode, dairy and food commissioner.

Benjamin F. Gayman, chief inspector.

PENNSYLVANIA.

William Frear, chief chemist.

SOUTH CAROLINA.

A. C. Summers, state chemist.

TENNESSEE.

L. P. Brown, state food and drug commissioner.

TEXAS.

J. A. Abbott, food and drug commissioner.

Tom H. Johnson, state chemist.

U. S. DEPARTMENT OF AGRICULTURE.

Carl L. Alsberg, chief Bureau of Chemistry.

R. E. Doolittle, chief New York food and drug inspection laboratory.

L. M. Tolman, chief food inspector, "B" division.

UTAH.

Willard Hansen, state dairy and food commissioner.

Herman Harms, state chemist.

H. C. Smith, chief deputy.

VERMONT.

Henry D. Holton, member State Board of Health.

VIRGINIA.

William D. Saunders, dairy and food commissioner.

(Signed) E. F. LADD,
T. J. BRYAN,
S. C. DINSMORE,
Committee on Credentials.

The President: Gentlemen—You have heard the report of the Committee on Credentials, what is the pleasure of the convention?

Mr. Allen of Kentucky: I move that the report of the Committee on Credentials be adopted. (This motion was duly seconded.)

The President: Gentlemen—You have all heard the motion, which has been seconded, that this report of the Committee on Credentials be adopted. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." The motion is carried, and it is so ordered that the report be adopted.

The Chairman: We will now have the report of the Auditing Committee.

REPORT OF AUDITING COMMITTEE.

Mr. President and Members of the Association: Your Auditing Committee has audited the report of the Treasurer, and has found the same correct.

J. R. CHITTICK,
WM. D. SAUNDERS,
GEO. B. TAYLOR,
Auditing Committee.

The Chairman: Gentlemen—You have heard the report of the Auditing Committee. Unless there be objection this report will be received. There being no objection, the report of the Auditing Committee is ordered received.

The Chairman: It has been suggested that we leave the report of the Committee on Resolutions until after the election of officers. We will now proceed with the election of officers.

Dr. W. P. Cutler of Missouri: Mr. President and Gentlemen—A year ago this body elected me as a member of the Executive Committee for the term of three years. I now desire to tender my resignation as a member of the Executive Committee.

The Chairman: Gentlemen—What is your pleasure in the matter?

Mr. Woods of Maine: Gentlemen—Under the circumstances, with regret, I move that the resignation of Dr. Cutler be accepted. (This motion was duly seconded.)

The Chairman: Gentlemen—You have heard Mr. Woods' motion that Dr. Cutler's resignation be accepted. Those in favor of this motion will please signify by saying "Aye" and those opposed "No." The "Ayes" have it, and Dr. Cutler's resignation is accepted. The nominations for President are now in order.

Mr. Woods of Maine: Gentlemen—Under the new Constitution the Association is now working along advanced lines of constructive work, and, while there possibly have been in the past a little discord, today there is absolute harmony in this Association—as great harmony as possibly can ever be hoped for in an association such as this—made up partly of scientific men and partly of men holding governmental positions in the states, and I feel exceedingly confident that we are on the road to exceedingly good constructive work. There has been no paper presented that has been of more value to the members of this Association, in this connection, than the paper given here during this convention by the commissioner from Idaho. In his work connected with this Association and in his work in his own state he has been a very great success, and it is with great pleasure that I place in nomination for the presidency of this Association, for the ensuing year, Commissioner Wallis of Idaho. (The nomination was seconded.)

Mr. Allen of Kentucky: I move that the nominations be closed and that we proceed to elect Commissioner Wallis of Idaho.

Mr. Bryan of Illinois: In view of the fact that that is contrary to the Constitution, I would move that the nominations be now closed and that the Secretary be instructed to cast the ballot of the Association for Mr. Wallis of Idaho for President of the Association for the ensuing year. (This motion was seconded.)

The Chairman: Gentlemen—It has been moved and seconded that the nominations for President be closed and that the Secretary be instructed to cast the vote of the Association for Mr. James H. Wallis of Idaho for President of the Association for the ensuing year. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "Ayes" have it and it is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the Association for Mr. Wallis of Idaho for President of the Association for the ensuing year.

The Chairman: Gentlemen—It is reported by the Secretary that the vote of the Association has been cast for Mr. James H. Wallis of Idaho for President of the Association for the ensuing year, and the Chair declares that Mr. Wallis is duly elected to that office.

The Convention then called upon Mr. Wallis for a few remarks.

Mr. Wallis: Mr. Chairman and Gentlemen of the Convention—I would be lost to a sense of gratitude if I did not express my feelings upon the honor you have so unanimously bestowed upon me this afternoon. I assure you that I appreciate it very deeply, and I trust that in our future work of the Association there will be no cause for regrets upon the part of any member, but that it will be a fair, square and frank and open administration as President. It is true that we are not made up all of scientists or executives, but that we are made up of officials who can give a proper accounting of the positions they hold. I know that I am conscientious in my work, and that my relations with this organization have been open and free, and everything that I have done in this organization has been to build up this Association of food officials so that we might be enabled to handle the work brought before us. I feel that we should do constructive work; that the time is opportune; that there are great fields before us to explore, and I am with you in anything that presents itself by which we may accomplish what we are all seeking to accomplish—that is to give the manufacturer and the consumer a square deal in pure food and drugs. I thank you. (Applause.)

The Chairman: Gentlemen—Nominations are now in order for the position of First Vice-President.

Mr. Allen of Kentucky: I wish to place in nomination for the office of First Vice-President of this Association Mr. J. S. Abbott of Texas for the coming year.

Mr. Flanders of New York: I want to second that nomination.

Mr. Woods of Maine: I move that the nominations be closed and that the Secretary be instructed to cast the ballot for Mr. Abbott of Texas as First Vice-President of the Association for the ensuing year. (This motion was duly seconded.)

The Chairman: Gentlemen—You have all heard the motion, which has been seconded, that the nominations be closed and that the Secretary be instructed to cast the vote of this Association for Mr. J. S. Abbott of Texas for the office of First Vice-President for the ensuing year. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "Ayes" have it, and it is so ordered.

The Secretary: Mr. Chairman—It gives the Secretary great pleasure to cast the unanimous vote of the Association for Mr. Abbott of Texas for the office of First Vice-President for the ensuing year.

The Chairman: The Secretary reports that the vote of the Association has been unanimously cast for Mr. Abbott for the office of First Vice-President of the Association for the ensuing year, and the Chair declares that Mr. Abbott is duly elected to that office.

In response to the request for a speech, Mr. Abbott made a few remarks in which he thanked the Association for the honor.

The Chairman: Gentlemen—Nominations are now in order for the office of Second Vice-President of the Association.

Mr. Ladd of North Dakota: Gentlemen—I take great pleasure in presenting for nomination for the office of Second Vice-President of this Association, Commissioner Strode of Ohio.

Mr. Tilford of Kansas: I second that nomination.

Mr. Barney of Iowa: I move that the nominations be closed, and that the Secretary be instructed to cast the ballot of the Association for Mr. Strode as Second Vice-President of the Association. (This motion was duly seconded.)

The Chairman: Gentlemen—You have heard the motion that the nominations be closed and that the Secretary be instructed to cast the vote of the Association for Commissioner Strode for the office of Second Vice-President of the

Association. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "Ayes" have it and it is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the Association for Mr. Strode of Ohio for the office of Second Vice-President of the Association.

The Chairman: The unanimous vote of the Association has been cast for Mr. Strode of Ohio for the office of Second Vice-President, and the Chair declares that Mr. Strode is duly elected to that office.

The Chairman: Nominations are now in order for the office of Third Vice-President of the Association.

A Delegate: I wish to place in nomination for Third Vice-President of this Association Sanford C. Dinsmore of Nevada.

Mr. Barney, Iowa: I second the nomination and move that the nominations be closed and that the Secretary be instructed to cast the ballot of the Association for Commissioner Dinsmore for the office of Third Vice-President of the Association. (Motion seconded.)

The Chairman: You have heard the motion of Mr. Barney that the nominations be closed and that the Secretary be instructed to cast the vote of this Association for Commissioner Dinsmore of Nevada for the office of Third Vice-President. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." It is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the Association for Mr. Dinsmore of Nevada for the office of Third Vice-President of the Association.

The Chairman: The unanimous vote of the Association having been cast for Mr. Dinsmore for the office of Third Vice-President, the Chair declares that Mr. Dinsmore is duly elected to that office.

The Chairman: Nominations are now in order for the office of Treasurer.

Mr. Bryan of Illinois: Gentlemen—I take great pleasure in nominating Mr. H. F. Potter of Connecticut for the office of Treasurer.

Mr. Allen of Kentucky: I second that nomination, and if there are no other nominations I would ask that the Secretary cast a vote of the Association for Mr. Potter as Treasurer. I will make that a motion. (This motion was duly seconded.)

The Chairman: You have heard the motion, duly seconded, that the nominations be closed and that the Secretary be instructed to cast the vote of the Association for Mr. Potter of Connecticut for the office of Treasurer. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." It is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of this Association for Mr. H. F. Potter Connecticut for the office of Treasurer of this Association.

The Chairman: The unanimous vote of this Association having been cast for Mr. H. F. Potter of Connecticut for the office of Treasurer, the Chair declares that Mr. Potter is duly elected to that office.

Mr. Potter: After having my honesty and sobriety vouched for by the Auditing Committee, I do not think it is necessary for me to make any further statement. I was a little afraid a few days before the date of the Convention that I would not have money enough in the treasury to buy a box of cigars, but just a day or two before the Convention your Secretary forwarded a few checks to me—and that is the only thing that I have to criticize your Secretary about; that is, that he should send all those little checks he has collected in a year and a half to me to deposit. I thank you for the honor or, I should say, confidence.

The Chairman: The next will be the election of members of the Executive Committee for a term of three years.

Mr. Cutler of Missouri: It gives me great pleasure to nominate Mr. Joel G. Winkjer of Minnesota, and if I may be permitted I would like to second that nomination, and move that the nominations be closed and that the Secretary be instructed to cast a ballot for Mr. Winkjer. (Motion was duly seconded.)

The Chairman: It has been moved and duly seconded that the nominations be closed and that the Secretary be instructed to cast the ballot of the Association for Mr. Joel G. Winkjer of Minnesota for the three-year term on the Executive Committee. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." It is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the whole Association for Mr. Joel B. Winkjer of Minnesota for the office of member of the Executive Committee for the term of three years.

The Chairman: The vote of the Association having been cast for Mr. Winkjer as member of the Executive Committee of this Association, the Chair declares Mr. Winkjer duly elected to that committee.

The Chairman: Gentlemen—Mr. Cutler, having resigned, leaves a vacancy on the Executive Committee for two years, and nominations will now be in order for member of the Executive Committee for two years.

Mr. Fricke, Missouri: I am positive, from my connections with him in the past few days and after listening to his very elegant papers he has read here, that he is possessed of all the qualifications for this office, and I now desire to place in nomination for that office Mr. W. B. Barney of Iowa.

Mr. Bryan of Illinois: I second that nomination.

Mr. Allen of Kentucky: I move that the nominations be closed and that the Secretary be instructed to cast the ballot of this Association for Mr. Barney for the office of member of the Executive Committee for the term the Chairman has just mentioned. (Seconded.)

The Chairman: It is moved and seconded that the nominations be closed and that the Secretary be instructed to cast a vote of the Association for Mr. W. B. Barney of Iowa for member of the Executive Committee to occupy the place left vacant by resignation of Mr. Cutler. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." It is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the Association for Mr. W. B. Barney of Iowa as member of the Executive Committee for the term of two years.

The Chairman: The unanimous vote of the Association having been cast for Mr. Barney for member of the Executive Committee for the term of two years, the Chair declares that Mr. Barney is duly elected to that committee. This is the unexpired term caused by the resignation of Mr. Cutler.

The Chairman: Gentlemen—The next order of business will be the election of a member to fill the vacancy in the Committee on Co-operation. Nominations will now be in order for the three-year term on the Committee on Co-operation.

Mr. Harms of Utah: I would like to present the name of Mr. M. E. Jaffa of California. (This nomination was duly seconded.)

Mr. Flanders of New York: I move that the nominations be closed and that the Secretary be instructed to cast the ballot of the Association for Mr. Jaffa for that position. (Motion duly seconded.)

The Chairman: Gentlemen—You have heard the motion that the nominations be closed and that the Secretary cast the vote of the Association for Mr. Jaffa. Those in favor of this motion will please signify by saying "Aye," and those opposed "No." It is so ordered.

The Secretary: Mr. Chairman—The Secretary takes great pleasure in casting the vote of the Association for Mr. M. E. Jaffa of California as member of the Committee on Co-operation for the term of three years.

The Chairman: The vote of the Association having been cast for Mr. Jaffa, the Chair declares Mr. Jaffa duly elected to that office.

The Chairman: Gentlemen—I think that completes the election of officers, and we will now hear the report of the Committee on Resolutions.

Mr. Abbott, of Texas then read the following report of the Committee on Resolutions:

REPORT OF COMMITTEE ON RESOLUTIONS.

Whereas, The Association of National Dairy, Food and Drug Officials, in Seventeenth Annual Convention assembled, hereby formulates the following resolutions:

Resolved, That the Association of American Dairy, Food and Drug Officials, as an expression of its appreciation of courtesies received, hereby tenders its thanks

1. To the government of the City of Mobile for the welcome so graciously extended through the City Commission.

2. To the Chamber of Commerce and Business League of Mobile for the numerous provisions they have made for adequate facilities for the work of the Association and for the many courtesies they have shown.

3. To the ladies of Mobile, through whose characteristic hospitality the stay of our ladies has been made delightful.

4. For the generous provision by which the members of the Association are enabled to visit the oyster beds of the bay and familiarize themselves with the working details of this great industry.

5. To the Hon. Wm. G. McAdoo, Secretary of the Treasury, for his courtesy whereby the use of the

United States revenue cutter Winona has been tendered to the members of the Association and their ladies, for this purpose.

6. To the management of the Battle House for the use of its auditorium and for the many other facilities it has so generously placed at our disposal.

Resolved, That this Association tender its hearty thanks to the Hon. C. H. Billingsley of the Alabama Department of Agriculture for his unwearying and effective efforts towards making the Mobile meeting both successful and pleasant.

Resolved, That this Association tender to the outgoing officers its appreciation of their efficient and courteous performance of the duties of their respective offices.

Resolved, That this Association tender to the Hon. L. Davies of Washington its regrets at his inability to be present at this meeting, to contribute his skill and experience to the current work of the Association and to cheer us personally by his unfailing cordiality.

Resolved, That the Secretary of the Association be and is hereby instructed to transmit to the proper parties the several resolutions of thanks adopted by the Association during its Seventeenth Annual Meeting.

Resolved, That this Association now, as in the past, favors the closest co-operation between the U. S. Department of Agriculture and the state departments in the enforcement of dairy food and drug laws. To secure efficient co-operation, we believe it is necessary to have uniformity of standards, as well as of laws, both those now on the books and future amendments thereto; and we recommend such joint action upon the part of the Association and the U. S. Department of Agriculture as in judgment of those bodies is best calculated to secure effective, fair, impartial and uniform standards for foods (to be established by a National Commission upon which this Association shall have representation and to be followed by regulations in the several states).

Whereas, Many of the food and drug laws, national and state, incorporate a guaranty provision, and,

Whereas, The sole purpose of the guaranty provision is to protect the jobber or retailer in the purchase of foods or drugs; and,

Whereas, The statement of the guaranty legend upon the label has proven in many instances to be misleading in that the consumer is led to believe that the food or drug is guaranteed by the federal or state governments, respectively; therefore, be it

Resolved, That the Association of American Dairy, Food and Drug Officials hereby earnestly urges the amendment of the federal and state regulations withdrawing the privilege of stating the guaranty legend on the label and providing for such other method or methods of guaranty as will fully afford the protection to the dealer provided by statute.

Whereas, In the judgment of the Association of American Dairy, Food and Drug Officials, the clause of the National Food and Drug Act of June 30, 1906, in paragraph one of Section VII, that permits the sale, under names recognized by the U. S. Pharmacopoeia and National Formulary, of drug preparations differing in strength and other qualities from the respective pharmacopoeial and formulary standards, have proven unfortunate for its operation, in that it has favored the development of variation in the strength of pharmaceutical preparations, and especially of potent drugs, and that the tolerances granted by this clause are both unnecessary and prejudicial to the public good; therefore, be it

Resolved, That the incoming President of the Association appoint a committee of three members to represent to the president of the United States, the Secretary of Agriculture and the proper committees of Congress the above expressed judgment of the Association, and its urgent recommendation that the above provisions of the National and Food Act of June 30, 1906, be so amended as to discontinue the tolerance herein referred to.

Resolved, That the Association of American Dairy, Food and Drug Officials hereby expresses to the Hon. J. W. Houston, the Secretary of Agriculture of the United States, and to Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry, its warm appreciation of their expressed attitude toward and tender of closer affiliation with the state agencies charged with the control of interstate commerce in food and drugs, and the earnest desire of the Association that this affiliation may be accomplished to the final best good of the people of the land.

Resolved, That this Association memorialize Congress and the president of the United States that in our opinion an amendment of the Food and Drug Act, providing that power to make standards for food products, which standards should be recognized by the courts as prima facie evidence of what is the true standard for a food product, should be delegated to the U. S. Department of Agriculture, which department should also be empowered to co-operate with this Association in securing the data and facts necessary for the formulation of such standards.

J. S. Abbott,
Chairman.
Wm. Frear.
Chas. Caspari, Jr.
M. E. Jaffa.
James H. Wallis,
Secretary.



J. S. ABBOTT,
Food and Drug Commissioner of Texas.

The Chairman: Gentlemen—You have heard the report of the Committee on Resolutions, what is your pleasure?

Mr. Allen of Kentucky: I move that the resolutions be adopted.

Mr. Woods of Maine: I second that motion.

The Chairman: You have all heard the motion, which has been duly seconded, that the resolutions be adopted. All those in favor of adopting these resolutions will please signify by saying "Aye," and those opposed "No." The resolutions are adopted.

The next order of business will be the deciding of the next meeting place of the Association. I will state that the Secretary has a number of letters from various cities and that we will have these letters read.

The Secretary: I do not think that it would be necessary to read all these letters. I think to simply give the names of the places would be sufficient. I will read a list of invitations from the various cities, and I would like to present the list to the Association. We have invitations from the following. They are usually from the commercial organizations in the respective places: Chicago, Ill., Fargo, S. Dak., Denver, Colo., Atlantic City, N. J., Asheville, N. C., Wilmington, Del., Buffalo, N. Y., Niagara, N. Y.

Mr. Flanders, New York: I will present here what purports to be a copy of a letter said to have been sent to the

Secretary of this Association by the business organization of Rochester, N. Y., inviting the Association to come there.

Mr. Woods of Maine: I did not come to this Convention with the idea of saying anything about Maine as the next meeting place of this Association. However, since I came here quite a number of the parties have asked me were I going to invite this Association to meet in Maine next year. I want to say that the latch string in Maine is always on the outside, and there is no part of the country in the summer that is better for meetings of this kind, both on account of the rates we can get and the temperature we are likely to find in the state. If you are going to accept an invitation to go into Maine, I would suggest Keneo, on Moosehead Lake, a beautiful place, where there are five hundred acres on which there are erected pleasure grounds, and a hotel which stands as unique as any in the country, beautifully situated right in the heart of the wild country, on a magnificent lake, with mountains surrounding it, and easily reached by three different roads. The hotel at Keneo is ample to take care of the Association. The rates are moderate, for we have not learned to work the extortion act yet up there. While I am not urging upon your coming, I say that we would be very glad to receive this Convention at any time, and if the members decide to go to Maine we will do everything we can to make the trip an enjoyable one.

Mr. Holton of Vermont: I know something about Maine and the man that has been speaking to us is a pretty good sample of the rest of the Maine people. I experienced their hospitality some time ago, and I can speak highly of Maine from experience. I second the motion that the next meeting be held in Maine.

Dr. Caspari, Maryland: I would like to urge upon this Association the desirability of trying the experiment next year of going somewhere where it is cool and comfortable, and Mt. Keneo, I think, is the place for it. I think we will make no mistake in going to a place of that kind. It is a cool, comfortable place. I should certainly like to see it selected.

Mr. Flanders of New York: On behalf of the Chamber of Commerce, I extend an invitation to this Convention to hold the meeting next year in Rochester, N. Y. I will read their invitation. (Reads letter from the Chamber of Commerce of Rochester, extending invitation to come to Rochester next year.) I second that invitation and request, but I do not urge it. I want to tell you that the city of Rochester will be only too glad to receive you.

Dr. Ladd of North Dakota: On behalf of the people of North Dakota and in accordance with the request and invitation of the governor of North Dakota, I ask the Association to meet with us in North Dakota next year. I cannot hold out to you the glaring account of beautiful scenery and so on, as that of Maine, but I will promise to take good care of you. We will promise you that it will be reasonably cool weather and that we will give you every facility for carrying on your work; that we have splendid hotels, and it will not interfere with your plans to do good work. We will give you the opportunity to come from over the Great Lakes and into the hunting regions; we will be glad to entertain you in North Dakota, and I assure you that the good people of North Dakota would be much interested in the work you are doing.

Mr. Stallings of Georgia: I wish to second that nomination for North Dakota. I feel that if the Association will meet in the northwest they will be well repaid for going out there. They will see the biggest small town in America. Furthermore, I can assure all of you that you will be protected by pure foods as you can in no other place be so protected.

Dr. Brown of Tennessee: I wish to also give my second to Fargo, N. Dak. We all know Dr. Ladd and what he is. We will get into a climate where it is cool. We will see the glorious country of the Northwest, and there is one consideration which occurs to me, and that is because the pure food in the United States owes Dr. Ladd a debt which it can hardly repay, and one way of showing him our appreciation for what he has done would be to grant his request to meet in his state.

Mr. Woods of Maine: Mr. Chairman—I ask for the question.

The Chairman: Well, we have for consideration Mount Keneo, Maine, Rochester, N. Y., and Fargo, N. Dak. What is your pleasure?

Mr. Woods of Maine: I would suggest that the Secretary call the roll.

The Chairman: The Secretary will then call the roll.

Upon roll call of states by the Secretary, Mount Keneo, Maine, was voted as the next meeting place of the Association.

Dr. Ladd of North Dakota: I move that the selection of Mount Keneo, Maine, be made unanimous. (This motion was duly seconded.)

The Chairman: Gentlemen—You have heard the motion that Mount Keneo, Maine, be selected unanimously as the next meeting place. Those in favor of this motion please signify by saying "Aye" and those opposed "No." The "Ayes" have it and it is so ordered that Mount Keneo, Maine, is selected unanimously as our next meeting place.

The Chairman: What is the further pleasure of the Convention?

Mr. Bryan of Illinois: I would like to call the attention of the Association to the difficulty which has been experienced by the sections this year in getting out their program, and to the Constitution which was literally complied with in sending out the notices ninety days prior to the time of meeting, leaving thirty days only to the sections for getting out their program. I do not think that this state of affairs will probably occur again, but thirty days is not sufficient time for the sections to prepare their program—both sections having been fifteen or more days later than that in getting their programs in. I would like to ask that the committee that has the power to fix the date try to agree a little earlier next year.

Mr. Wallis of Idaho: I would like to announce that I would like to meet the Executive Committee this evening at 7:30 in room 508, Battle House.

Mr. Woods of Maine: For the information of the Executive Committee, I wish to state that I think it would be a little better if we would meet fairly early in July, say a little after the Fourth of July. The hotel at Mount Keneo is a big house, but if we came earlier in the season they will naturally put themselves out to please us.

Mr. Bryan of Illinois: I move that we now adjourn. (This motion was seconded.)

The Chairman: Unless there be objection the Convention will now adjourn.

Convention thereupon adjourned.

EXPORT POSSIBILITIES.

No. 10777. Glucose.

An American consular officer in Canada reports that a resident of his district desires to obtain a list of the manufacturers of glucose in the United States.

No. 11032. Canned Goods, Cereals, Oils, etc.

A firm of canned goods brokers and general produce merchants informs an American consular officer in the United Kingdom that it is desirous of accepting sole agencies for American producers of the following articles: Canned fish (particularly canned salmon), meat extracts, canned meats, canned vegetables, canned fruit, fruit pulps, tomato catsup in casks, rice and other cereals, peanut kernels, cottonseed oil, etc. The firm has not specified other food products in which it is interested, but includes practically all articles of food, whether unmanufactured in bulk or prepared for immediate table use. This firm has had several years' experience in the food trade and is prepared to give any references required.

No. 11126. Fruit Preserving Apparatus.

One of the commercial agents of the Department of Commerce reports that there seems to be need of instruction and apparatus for preserving fruit in a certain South American country. There is an abundance of fruit, much of which goes to waste through inability to transport it to market and lack of knowledge as how best to preserve it.

No. 11132. Machines for Extracting Oils of Citrus Fruits.

A bottling company in the West Indies is desirous of obtaining catalogues and prices on machines for extracting the essential oils of citrus fruits. The consul who forwarded this request states that machines are desired that are suited to engine power.

No. 11189. Fruit-canning Machinery.

A business man in a South American country, who is a member of a firm doing an extensive import business in agricultural machinery of all kinds, and also a fruit canner on his own account, informs a commercial agent of the Department of Commerce that he is anxious to communicate with American manufacturers of fruit-canning machinery. Correspondence should be in Spanish.

No. 11212. Canning Factory.

An American consular officer in a South American country reports that plans are being made for the establishment of a canning factory in his district. The company will import the tin and make its own cans. Further particulars may be obtained from the person named in the report.

Section A—Association of State Food and Dairy Executives

AFTERNOON SESSION—TUESDAY, JUNE 17

Mr. James Foust, of Pennsylvania, the President, being absent, the meeting was called to order at 2 P. M., by the Vice-President, Mr. M. E. Jaffa, of California, who occupied the Chair.

The Chairman: Gentlemen, the first thing on the program for this afternoon is the address of the President. Our President, Mr. Foust, of Pennsylvania, is not in attendance upon the Convention, but I shall now read to you his report, which he has sent to me, with the request that I read it.

Mr. M. E. Jaffa, of California (chairman), thereupon read the following annual address of James Foust, President.

Members of the Association of State Food and Dairy Executives:

In my remarks opening the fourth annual session of this Association, now working in collaboration with the Association of American Food, Dairy and Drug Officials, as its Section A, I shall confine myself to a few observations upon the purposes of our organization, and to a suggestion looking to the most satisfactory accomplishment of its purpose.

This purpose, as announced four years ago, at the New Orleans meeting, was to give to the executives opportunity for conference upon purely executive problems and for heart-to-heart talks not so well suited to the general sessions of the Association of Officials. My own experience with our organization of executives has been highly valuable to me, and I trust that others have likewise found benefit from our discussions and exchange of experience.

With the aim of calling forth the freest expression of experience and opinion, the "round table" has been made a part of several of our programs. This year, I have suggested that the subject of round-table discussion shall be "The Program." The work of the food and drug control executive is complex, has many relations, and difficulties in every one of them. The subjects of our meetings should be selected so as to throw light upon such problems as are, at the time, most important. The subjects should not be handled in an off-hand manner, but their discussion should represent mature, deliberate thought, and every member should come prepared to contribute from his experience to the common good.

My thought has been that these ends can best be secured by having all members now present share in the selection of next year's topics and that the program be made up at the round-table; thus leaving to the Chairman-elect of the Section, the sole duty, in relation to the program, of selecting the leaders for the several discussions; while the members, by keeping the selected topics in mind during the year, will be best prepared for bringing value and interest to next year's meeting.

Mr. W. B. Barney, Iowa (Secretary): Gentlemen, I do not think I have any report to make. We have made no collections; have no funds, and I have no report to make.

The Chairman: Next order of business will be the report of the Treasurer. We will now hear from Mr. F. A. Jackson, the Treasurer. I understand that Mr. Jackson is not present at this meeting.



M. E. JAFFA,
Director of California State Food and Drug Laboratory.

The next on the program will be a discussion of the subject, "The Legislature, the Food Commissioner's Greatest Difficulty." According to program, Mr. James H. Wallis, of Idaho, will open the discussion on this subject.

Mr. Wallis, Idaho: Gentlemen, I left Idaho on the 8th day of May, and at that time I did not know that I was on the program. I did not know it until the day before yesterday, and I have, therefore, not given hardly any consideration to the thing at all. I would have much preferred to have written this address, because of its nature. It is a matter that is quite serious so far as the food executives of our states are concerned. Since I have come into this room, the last few minutes, I have jotted down a few items which possibly might afford the basis of some discussion that might ensue when I get through with this speech. "The Legislature, the Food Commissioner's Greatest Difficulty." I don't know how that is for a conclusive proposition. The Legislature is certainly a great difficulty with many executives. Some states may have found more support from their Legislature than other states have found. Personally, so far as Idaho is concerned, the Legislature has not been of any difficulty with myself. When I first took this position, I had no help in my department—not even a stenographer, and an appropriation enough to cover my salary, which was Fifteen Hundred Dollars—$125.00 a month, and my reasonable traveling expenses. The next time the Legislature met they increased my help by giving me a stenographer and two assistants, and also gave me an appropriation of Twelve Thousand Dollars, and Twenty Thousand Dollars, in whatever fees I collected. This last Legislature has given me a force of ten people, and an appropriation of Forty Thousand Dollars. I have never been to the Legislature with any reasonable demand that I did not come back with "bread in my hand"—I never came back with "a stone in my hand." Four years ago we got through most of our food legislation. We got through a law, which provided, like in our many other states, that our standards would be those as were of the National Government. I have tried to conceive why the Legislature should be an enemy of the food executive. I do not think that it is all the time of premeditation or maliciousness, because the question of pure food and better sanitary conditions appeals to any person that has any thinking mind about him. The great trouble with our Legislature, I believe, is the indifference that is given this question. You go to our Legislatures and you find that it is not many days before they are submerged with an avalanche of bills given out to different committees. I do not know how the Governors of your states are, but in looking over some of their messages, I find that almost every other subject is treated upon by him in his message, but when it comes to the food production, that very few executives deal with this question in their messages, and call upon the Legislatures to give proper appropriations, so that the objects of these laws may be accomplished. When the legislature is in thorough session,

and I see it is flooded with bills, the result is that very little consideration is given to our work. Then again, if the executive enforces a law, as the law should be enforced, he arouses antagonism in different units of the states from which members of the Legislature are elected. Members of the Legislatures are subservient—I was going to say—but, at least they are under the influence of the strong business men of the sections of the state from which they are elected, and the result is that if an executive has been supported by some leading merchant, that he possibly goes up to the Legislature with the promise made to those business interests in his community—and that so far as additional help in food work is concerned, it won't get much of his support. When it comes to the matter of appropriations, I think that is where considerable of our executives meet the greatest difficulty. They appropriate plenty of money for the protection of game and fish, and the building of highways and other public work, all of which is very necessary, but when it comes to health work, and the protection of our health, it is the same story as in the National Government—there is but very meagre appropriation made. I lay the basis so far as our State is concerned—that we have not suffered from these conditions, but I know, from talking with executives at the different conventions, that they have confessed to me that these influences, which I have talked about, have predominated to a great extent, when it came to passing laws for the better food production, and in getting better facilities for enforcing those laws.

I will tell you what I have done in Idaho. I have made it a point to take a list of all the senators and representatives that have been elected, and I write for information as to their business affiliation in every county of Idaho, and I have always made it a point to visit the members-elect to the Legislature, and have explained my work to them, because this work is a work that they have not paid much attention to—at least they don't understand it as well as the food expert, and I have shown them the necessity for the amendments of the laws, and it is a matter of education. I find that the best work we have done has been before they come to the State Capitol, when I could discuss my work with them at home. I have been connected with several associations in Idaho, and I have seen some of my friends in power myself.

The Chairman: Gentlemen, the question is now open for discussion to the whole convention, and we will now hear from any member.

Mr. Winkjer, of Minnesota: Gentlemen, we should prepare for the meeting of the Legislature. I think the difficulty in getting laws through after the session of the Legislature opens is that they get so busy with other laws that they cannot think of it, and the proper time to prepare is between the election and the session which will occur. I have found the difficulty—that when the session has started, it is almost impossible to get their attention, and before the session opens, you can present the things to them so that they will understand them. The lobbying—so to speak—is not the view to take of it. The proper view to take of the matter is to look at it like this—that unless the Legislatures can see how the department is run, we cannot expect them to make proper legislation, and unless we get them at the proper time, we cannot expect that they will be informed. Therefore, I believe that the point that he mentioned right there is well taken. Furthermore, I think, the Commissioner's duty should not be bound down to little details, where he will be kept away from doing that work. It is their duty to take a view of the whole situation, and do what is right, and to visit the members, or, if he cannot visit them, to write them.

Mr. Barney, of Iowa: I have found one way to work out this proposition, as to appropriations, that helps to quite an extent, and that is—a license feature. We started in, in our State, two years ago, and licensed all operators of the Babcock Test, to the amount of three dollars a year, and it brought as a revenue to the state about the amount of $6,500.00. That looked so well to our Legislature that they fixed the law this last winter, that we license bakeries, slaughter houses and meat markets. There is another feature in this license proposition, that I have found helpful, and that is the Commissioner has been given authority to withhold a license for reason, or even to revoke the license in some instances. I think it is a good thing. You tell the man that I am not authorized to give you a license to run a dirty place, and on the other hand, if he has a license, he is a little careful to see that his place is kept clean, so that he will not lose his license. Our law is such that if the license is revoked, it is a violation of the law to run a place without a license, and I believe it is a good thing. I believe too, that when I go to the Legislature a year from next winter, and say to them: "I have collected about fifty thousand dollars in the last year in licenses," that it will be wonderfully helpful to me in getting a big appropriation. All this money in our State goes direct to the Treasury. Our fines under the Food Law go to the school fund, and I calculate that under our present license proposition we will have in the neighborhood of forty or fifty thousand dollars to turn into the Treasury practically each year hereafter. I went before our bakers this year in their convention, and I said to them: "We are enacting a new sanitary law"; and I told them what it was like, and I said to them: "Is it worth three dollars a year to you to have a license to stick up in a frame, saying that your bakery has been inspected by the Dairy Food Association?" and the result was that they passed a resolution, standing for that license, and very generally I have always taken the matter up with the different associations, before their conventions, and very generally they stand for it, and all of them think that it is a good feature.

Mr. Hansen, of Utah: I would like to ask Mr. Barney a question. The question whether or not the question that they are being taxed too heavily already—does that question ever come up? We suggested that proposition in our State and they said that they were taxed already too heavily.

Mr. Barney: We had very little criticism of that kind, and, in fact, I know that in some of the large states, where they make scale inspection, they charge for the scale inspections, and in our provisions we license scales. One thing we did was to license the penny-in-the-slot machines which stand in the depots. We found that about one-quarter of them didn't weigh at all, and about one-quarter did not give correct weights, and we enacted a law which requires them to put their scales in shape, and requiring them to pay a license of three dollars per year to the State. Well, there was some little criticism of this proposition, yet it was very generally looked upon as being a pretty good thing. I would not advise making the license too high. It costs about three dollars to inspect these places, and it costs in the neighborhood of one dollar to look after the licenses.

Mr. Brown, of Tennessee: I do not know how the conditions in Mr. Barney's state are adapted to the methods which he uses, but I do want to take issue with that method of supporting the food association as a principle of government. It is simple in the first place, and on the highest possible ground which can be deduced—these inspection laws are for the benefit of every man in the state, and the unfortunate man who elects to go into the grocery business, or the bakery business, or even to put up a scale in a public place, should not be required to pay the cost of this benefit, to the whole people. It is unfair to him. You have no right to make this man pay for the protection against himself which you give to the whole people. Again, it is an indirect tax. We have, in our state, a tax of fifty cents per ton on fertilizer. The consequence is that the dealer is taxed fifty cents more on to the retail price of his fertilizer, and the farmer pays it. It is very poor policy to have that means of supporting a department. I considered that at first myself, but always with a fair understanding of the idea that it was not the proper thing to do. You know, though, that all of us do things that we do not approve of, and this matter of indirect tax is not a good thing.

Mr. Wallis, of Idaho: I was going to state in connection with this question of fees, that the more I have investigated this question of fees the more I am like Dr. Brown. I think that it is the worst kind of support for us to get to maintain a food bureau. I went to the Governor and recommended the abolition of the fees, and the appropriation of a direct fund for the support of this fund. It is just as Mr. Hansen said—the merchants are taxed for this, taxed for that and the other—and when you go in for our tax, some will tell you that it is not necessary. For instance, the scale inspection. The scale inspection in Idaho is absolutely free. I say that it is a most vicious practice to look to the business man for the support of this work.

Mr. Tilford, of Kansas: Are you now collecting these taxes?

Mr. Barney: Yes, sir.

Mr. Tilford: Do you find the trade in favor of it?

Mr. Barney: We have no objection to it.

Mr. Hansen: I would like to state here in this connection that the reports to me show that over fifty per cent of

them frown and say it is a regular graft. Those are the reports which are made to me.

Mr. Barney: I want to say that we collect no fees for inspecting scales. We simply collect for scales over two thousand pounds capacity. In the Weight and Measure Department, we inspect all scales for merchants free of charge. In the operation of the Babcock Test law, the man should pay this license, who were the people most benefited by them, and they were very willing to pay it, and I took it up with the butter makers of Iowa this last year, and asked them if they wanted the law repealed, and they said they did not want it repealed. They would rather pay five dollars, and get the service. There are many places where I think that these fees can be used to advantage.

Mr. Helme, Michigan: Gentlemen, I would like to say this. How did your Dairy and Food Departments come to be established? I will tell you. The simple reason is that the manufacturer of the food and sellers of the food resorted to bad practice. In order to protect the consumer we have gotten the food departments. Why should that expense be placed on the consumers? Why should it not be placed upon these people who made it necessary that we have this dairy food department? In our State, we have collected some fifteen or twenty thousand dollars. Why should the consumers in Michigan be made to pay for the bad practices of some of the bad commission men in Michigan. They are the ones to blame. Why should this burden of taxation, in order to protect them, be placed upon the consuming public. I do not think that it is just to place this taxation on those people that have to be protected. The honest commission men want us to have our laws because they know it is against the dishonest commission men.

Mr. Potter, of Connecticut: I wish it distinctly understood that a man to be a good politician must be somewhat of a good business man, and I do not class myself as a politician, but I do think that we are straying a little bit from the subject. We should confine our remarks in discussing this paper partly to the subject: "What are the Difficulties of the Food Commissioner, with Reference to the Legislataure?" I believe that any one of the food commissioners present here will have very little difficulty with his Legislature. If he is successful in his work, and shows ability enough to satisfy the people of his State that he is doing good work, I think that he will have very little difficulty with his Legislature in geting an appropriation sufficient to carry out the work.

Mr. Winkjer, of Minnesota: I believe that it is a point well taken, about following the subject that we started out on, and I make the suggestion that the subject of the fee system be taken up as a topic of discussion at the next meeting.

Mr. Wallis of Idaho: The paper that I have prepared places the result of the answers received to each question in the form of a concrete proposition, and in the discussion there follows a paper, and I think if you will wait until the paper is read, that possibly we can dispose of this subject tomorrow afternoon, when I present my paper.

Mr. Brown, of Tennessee: I do not think it is necessary. Dr. Woods asked for a discussion on the paper under discussion. I want to say that Mr. Wallis has done exceedingly well with his Legislature, and I have hopes of doing the same thing with mine, if I can ever catch it. If we could get to them it would be all right.

Mr. Allen, of Kentucky: One phase of dealing with the Legislature and one of the difficult phases, is getting the opposition to agree to your measure. We had a little experience recently at Lexington, which makes me state this as a good policy. The State appointed a committee to draft an ordinance—a sanitary dairy ordinance—and they finally submitted our ordinance—our original draft. After the ordinance was reported to the Commission—we have the commission form of government—and submitted to the State Solicitor, objections arose. Some months ago, I was on a sub-committee, and one day was going into the State Solicitor's office, and I found one of my old friends, a farmer, also there to see the State Solicitor, and I laughingly said: "Captain, what are you doing here," and he replied he was there to see what the milk ordinance was, and I asked him if it was possible for the dairymen to bring up their objections, in the form of proper objections to the ordinance, and he said he would get them together on the matter. I met with that committee, and gave each a copy of the ordinance, and I said: "I want you to take it home, and go over it, section by section, and when you find it necessary to object to a certain provision, then stop and consider as to whether or not, you, as a citizen, saw any necessity for the provision of that idea in the law or ordinance, and then if you have gotten that far, then supplement your objection to the recommendation." I said it is very hard to draw these laws to suit everybody, but that what we want you to do is not only to object to this ordinance, but to help us to make a good ordinance. They came back in about a week and made some splendid suggestions, and I re-drafted the ordinance, and they went over it again, and finally, last Thursday or Friday they agreed on it, at a meeting of these men, and we now have agreed on an ordinance for Lexington which is ten times better than my original draft. They had some requests to make and have made some splendid suggestions. I found that they wanted the inspector to make a physical test—that they, in other words wanted the inspector to know something about the herd before he could pass on the herd. There are times when their herds are in a better condition to stand a test, and what they asked then was simply that before the inspector should arbitrarily require a test, he should visit their herd, and we put that in the ordinance. We have found in Kentucky, this to be the best policy for overcoming objection from what we might say trade, and in no single instance have we ever failed to bring the trade—that is, a large majority of it—to the fundamental principles that we are striving for, and in no single instance have we not been able to bring about a better law than we had at first. We have recently adopted some slaughter house regulations, under the law, which was returned after a pretty broad study of the subject, and the Louisville Protective Butchers' Association endorses those regulations as being necessary, and calls upon the other butchers to put them into effect. In other words, you should co-operate with the trade when you go to get a law through. If you can go into the Legislature with a law and get it through with the support of the trade, do it. Don't try just to fight it through, if you can help it.

The President: Gentlemen, the next thing on the program is the paper on the subject: "Some Difficulties an Executive Meets in Discharging His Duties." This paper will be read to you by Mr. Lucius P. Brown, of Tennessee.

Mr. Lucius P. Brown, of Tennessee, then read the following paper on the subject:

Some Difficulties an Executive Meets in Discharging His Duties

By Lucius P. Brown, State Food and Drug Commissioner of Tennessee

I am under obligations to the Program Committee for the qualifying word "some" in the title of this paper. If it were not for that word I should certainly not be able to compress a paper of this sort within the ten minute limit. I assume, also, that I am not expected to cover the whole field. The greatest "difficulty" has been covered by the gentleman who preceded me.

It strikes me that another, to which is also due a large part of the trouble which he covers, is ignorance—ignorance on the part of the consumer, whom the Legislator represents; on the part of the dealer, with whom we must primarily come in contact, and the representatives of these two classes whom they send to the Legislature. I have no panacea for ignorance. Greater minds than mine have retired baffled from a consideration of this problem, and it is one which only time will solve.

But a trouble which it seems to me will be much more quickly dissipated is one which unfortunately is extremely prevalent in our United States at this time. I mean the prevailing spirit of disregard of law. Where one law is disregarded, another is much more than apt to be.

It is quite true that Food and Drugs laws have the support of public opinion, but when a lot of hair-splitting lawyers get to work with a judge who revels in the technical end of his pro-

fession, the peoples' business in the enforcement of these and other laws is likely to suffer.

Possibly one of the chief troubles an executive is likely to meet, and on which I assume that the gentleman who follows me will talk, is the question of politics. Unfortunately that old theory, with the inception of which, rightly or wrongly, the name of Jackson is associated, viz.—that "to the victors belong the spoils," is still all too rife in making up the personnel of American governments, especially in the States. The idea of foisting upon an executive an official whose only recommendation is that he controls the votes in the Grassville township, and has swung them to the prevailing State government, is abhorrent to any man who takes a pride in his work.

Food and drugs work is necessarily technical, and for the best results only trained men should be employed. The class of cattle that an executive often gets hold of, by virtue of the operation of this nefarious principle, is enough to make angels weep. The only way to avoid it is to provide by law that employes of the Department shall be selected under some sort of civil service requirements.

Another difficulty I have met with, and I presume it has been the lot of all of you, is the attempt of persons to use the Department in order to break down a competitor, or to satisfy petty spite. One manifestation of this is the modest violet who is too humble to sign his name to letters. He is easily handled. His letter goes to the waste basket, and his information to the corresponding waste basket of one's mind.

His comrade-in-arms comes boldly and openly, with a "shadow of title" to the claims he makes, and tells you about how so-and-so is violating the law. Sometimes this looks very pretty, but it behooves one to walk warily. A gentleman of this sort came to me not long since, with a story which had a certain amount of foundation, but before I got through with him I surprised him very much by pointing out that he was violating the law in another particular in a much worse fashion than the man on whom he informed.

The woods of food law enforcement are full of such pitfalls, and in their larger aspect they are shown by matters over which this Association has quarrelled long and wearily. Certain questions of preservatives in foods are the most conspicuous instance which come to me at this moment. In such cases, both sides are struggling for commercial advantage, one side apparently with much more intelligence than the other, because they can read the handwriting on the wall, and anticipate that right must triumph in the end. I honor these men for their stand for the right, but the Food Commissioner and the food chemist ought always to bear in mind the commercial aspect of the situation, and in matters of detail not be led away from the main issue by such commercial considerations.

A descent from this large question is the consideration of the shyster lawyer. Of course, in all communities these exist. They are always hungry. When they are even "indifferent honest," they are usually not very able, and so are poor, and when an offender, arrested on a perfectly clear point of law, goes to them for advice, such advice may be given as will insure the maximum financial benefit to this nub of the law. The defendant will be advised to fight the case, instead of receiving the much more sensible and reasonable advice that he is in the wrong and that he had better make such terms as he can, and afterwards go and sin no more. This man, of course, simply ought to be classed with the ambulance chaser, and the same considerations of decency apply to him as to his better known brother who fattens on physical or financial injuries received from the menials or machines of a bloated corporation.

One difficulty with which I have had to contend has been a lack of enforceable standards on certain foods. Ice cream is a case in point. It is quite true that we have a standard for ice cream given under the authority of the Joint Standards Commission, but it is also true that the decisions of this Commission have no standing in the law. They are persuasive only, and there is no doubt in my mind that the man who contends for no standards of ice cream has a great deal of merit on his side, although the preponderance of evidence and common sense is against him. For this trouble I see little chance of help. It is impossible, on most foods, to enact standards into law. To do so, would be in a large measure to put a halt to progress, and discourage research. Our children will use many forms of perfectly good food that we have no knowledge of, just as we are now eating a great deal of stuff of which our fathers knew nothing; for instance, the great brood of breakfast foods which now adorns the advertising columns of the newspapers, and an occasional breakfast table.

Such are some of the difficulties which I have met with.

If this short talk has thrown out any material for discussion, I shall feel like Cadmus when he sowed the dragon's teeth, but I warn you that unlike him I shall endeavor to take a part in the fight.

The Chairman: Gentlemen, you have heard the paper just read by Dr. Brown. Are there any members who wish to discuss it. If there is to be no discussion on the subject we will pass to the next paper on the program, which will be that of Mr. J. W. Helme, of Michigan, on the subject: "Difficulties in the Organization of the Administrative Forces." We will now hear this paper by Mr. Helme.

Mr. J. W. Helme, of Michigan, then read the following paper on the subject: "Difficulties in the Organization of the Administrative Forces."

Difficulties in the Organization of the Administrative Forces

By James W. Helme, State Dairy and Food Commissioner of Michigan

Necessarily on this subject I have to speak largely from experience in Michigan. It may be that Michigan is an exception to the other 47 States of this Union, but I have a suspicion that many other States have had similar experiences.

PARTISAN POLITICS.

The largest trouble that a new commissioner will face on assuming his duties is a divided duty towards the political party responsible for his elevation to office and the duty he owes the public as a public official. From the creation of the office in our State, although under the law the commissioner made all appointments, in reality the governor or his political managers appointed all subordinates from Deputy Commissioner to Janitor. The appointees' qualifications in most cases were political services rendered in the primary or election. Two years ago nearly a clean sweep was made in the Department by Governor Osborne. The fact that four men appointed Dairy Inspectors hardly recognized a cow when they saw one made no difference to the party machine; but it did make a lot of difference to the 1,000 creameries, cheese factories and condensed milk factories they came in contact with, and sentiment was so strong against the department that in order to allay the feeling Governor Osborne appointed me Deputy Commissioner, although I had opposed his nomination and election and did not wear the same political label that he did. I was appointed solely because for 20 years I had operated and lived on a dairy farm. I was given charge of the dairy department and allowed to make one appointment. I appointed a Canadian who knows more about practical butter and cheese making and less about Michigan politics than any man I know in Michigan. He did some good work and is still with us. The election last year brought another political change and I was given charge of the Department by Governor Ferris.

In my two years as Deputy, I became well acquainted with the inspectors' work. Some was good and some was otherwise. Governor Ferris told me he would hold me responsible for the work of the Department, that I should organize it as I saw fit, and under no circumstances would he even recommend in the matter of appointments. He kept his word. When I dropped several of the old inspectors there was a howl from one party machine. When I refused to dismiss all the employes there was a howl from my own party adherents, but I kept steadily on, appointing or retaining employes because of the efficiency I thought they possessed. After five months' work of the department I think Michigan people will generally agree that the policy has been successful. That by giving the State a department of the highest efficiency I have rendered the party

more service than I could in doling out a few jobs to political workers.

Partisan politics should be divorced from offices of this character. Efficiency should be the first consideration in all appointments. Public sentiment will demand this sooner or later of all State Executives.

PUBLICITY AND EDUCATION.

No matter how hard a commissioner may work, if his educational and inspection work receives no publicity, if the people do not know what he is doing, the value of the department is impaired 75 per cent. On taking charge of the department last January I announced I would each week issue a bulletin for the newspapers of the State, exposing some fraud in food or some fake in patent medicines or some educational work. These were written up in as snappy, humorous and readable style as I could write them. They were sent to 100 of the leading newspapers of the State, including all dailies. They were to be released on a certain date so that all papers had the same chance to print them. At first but few papers published them, but those papers were so much sought for by the public that their competitors were forced to publish them or disappoint their readers. These bulletins are now being published weekly by about 75 newspapers and are doing a world of good to the public and the department. Food and drug abuses cannot survive in the limelight of newspaper publicity. But in order to get articles published two things are necessary: They should be short (300 to 400 words), and they should not deal in doleful, scientific terms, but be newsy and of interest to the humblest reader and readily understandable by him.

THE COURTS.

Many complain of the failure of prosecution in the courts. I have not much to complain of here. Out of 31 prosecutions in March and April, 29 convictions were secured and 1 acquittal. Prosecute no cases for mere technical violation of the law. Do not prosecute unless the spirit of the law is violated as well as its letter. We also warn all persons on the first offense and then prosecute on the second. When you can show to a jury a wilful violation of both the letter and spirit of the law, after due warning, juries will seldom fail to convict.

Convictions under the pure food laws are much easier than formerly. Public sentiment has grown on this subject. The high cost of living has helped. The average juror now thinks that if he has to pay a high price for food he is entitled to have his money's worth in quantity and quality. The courts, feeling the justice and popularity of pure food laws, do not dismiss so many cases on legal quibbles. One thing is necessary — every food department should have its own lawyer to prosecute contested cases. Food violators employ the best food experts in the country to defend and these experts who know the subject have a county prosecutor who knows nothing of food laws and scientific facts at their mercy. Each prosecuting attorney in Michigan averages trying about one contested food case during his four year term of office. Not being posted in the science of foods, he is an easy victim to the expert food lawyer.

THE LEGISLATURE.

New conditions arising constantly suggest changes in existing laws and the passage of new ones. What is the best way to get these?

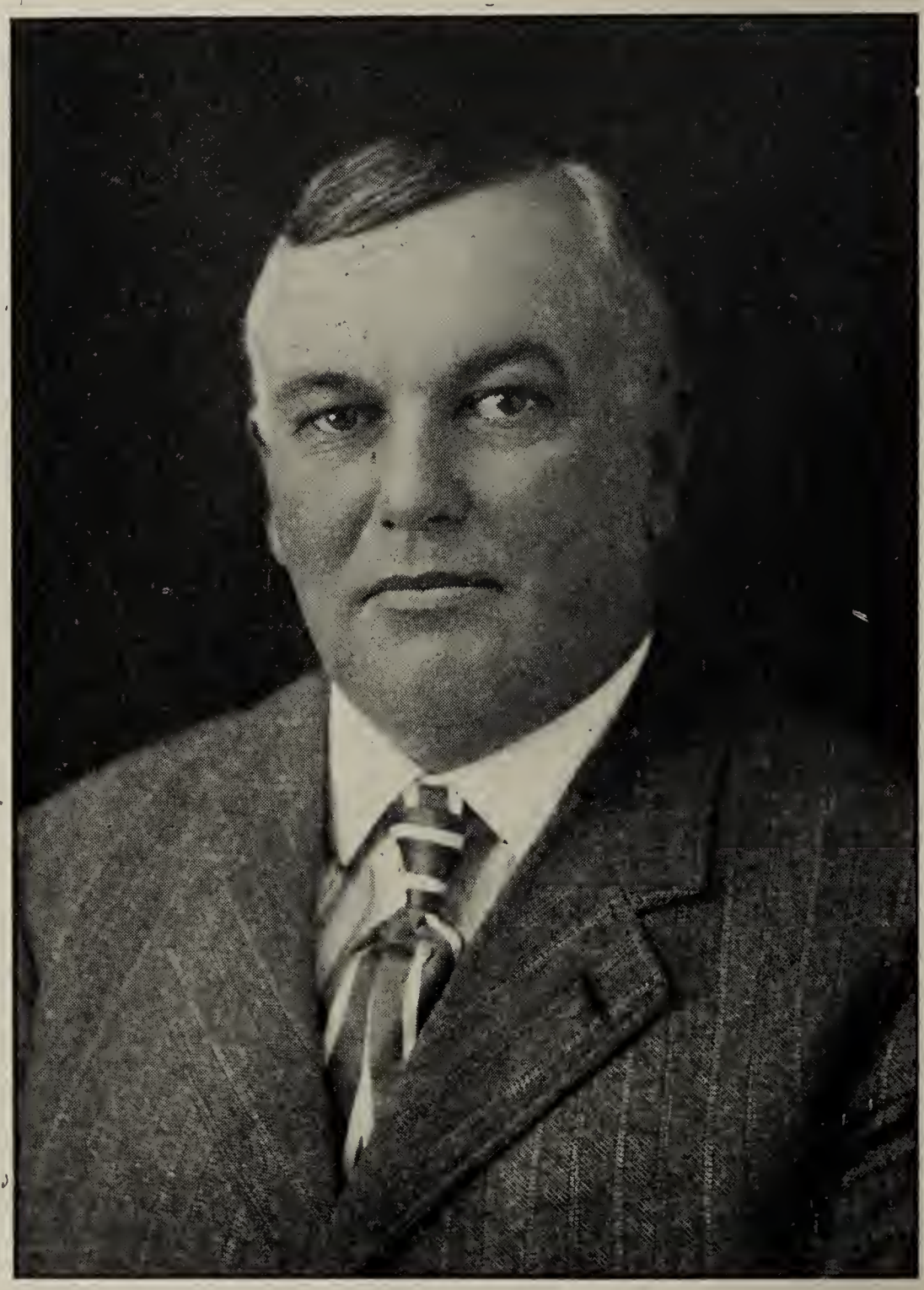
At the last session of the legislature I secured the passage of 25 new laws and amendments to existing laws from a legislature politically hostile to me. I carefully prepared the bills, consulting interests that might be affected by such legislation. When the bills were in proper form I selected some popular members to introduce the same. Much depends on having a member popular with his fellow members handling your legislation. Distribute the bills around in both houses. When a bill came up in committee of the whole, I had a printed explanation of the bill and its object on the desk of each member. If consideration in committee of the whole developed some kickers I interviewed them personally before the measure came up for final passage and generally succeeded in removing their opposition. Only one bill that I really wished passed and pushed was defeated, and that was smothered in a committee of big interests. The average legislator wishes to be fair and do the right thing. See that he properly understands your bill and its objects before he attacks it. After attacking it he often hates to back down.

Three new lines were added to the work of our department by the last legislature, viz.: The supervision of weights and measures, the licensing and regulation of commission men, and the testing of sugar beets.

FINALLY.

Proper laws, efficient subordinates and due publicity, which are the tools that a commissioner has to work with, having been secured, it is then up to the executive officer to secure results. His own energy, persistency and honesty must then be exercised in every way that he may have a successful administration.

The Chairman: Gentlemen, the paper which has just been read to you by Mr. Helme, of Michigan, is now open to you for discussion. If there is no discussion to be had, we will pass to the next order of business, which, according to the program, will be the paper prepared by Mr. H. F. Potter, of Connecticut.



JAMES W. HELME,
State Dairy and Food Commissioner of Michigan.

Principles That Should Govern the Relation Between the Food Commissioner and the Chemical Laboratory When the Latter Is a Separate State Institution

By H. F. Potter, Dairy and Food Commissioner of Connecticut

The thought which this subject may first suggest to some of you will perhaps be, "There should be no such relation." The commissioner should have a laboratory and a force of chemists under his immediate control and adjoining his own business office. His work should be absolutely independent of any other agency.

Let us admit at once the very great advantage of such an arrangement considered apart from everything else.

In Utopia we may have a commissioner free from all political entanglements, not removable by the accidents of a state election, but holding his office for a considerable term of years, with a force of analysts and microscopists at his command and sufficient funds to maintain a laboratory suited to his needs and to retain in his service thoroughly trained men against the offers of other institutions.

But it is safe to say that none of the commissioners meeting here today is living in this Utopia, or even know the road which leads to it.

The work of the food commissioner cannot be considered by itself; that is, as an institution which must or which can be ideally organized or conducted. In the older States, at least, it has been built upon and supplements other agencies or institutions. It was, in a way, an afterthought, and in its establishment the problem was how to fit it in with other things already organized and in operation with the least disturbance and expense.

This is not peculiar to the food commissioner's department. It is the story of every agency created to meet some newly recognized need of society. Its organization means compromise, mutual concession, adaptation to agencies already existing.

We all know how urgent is the call for uniformity of State laws—and how futile. Equally futile is it to expect that the machinery for the enforcement of food and drug laws will be of one kind in every State, or even in adjoining States.

Now, as a matter of fact, in some of the States the determination of the quality of food and drug products and expert evidence in court is committed to one institution and the administration work of inspection, collection of samples, prosecution, etc., is committed to the food commissioner.

The arrangement may be open to criticism, but it is in operation in some States and it works. And a system is not evil which works fairly well. Rather, the test of the goodness of any system, whether of philosophy, of politics or of food control is: Does it work? If it does it is good. If not, it is bad.

What principles should govern two independent agencies working for a common object? I should say in brief: Recognition of the rights of each, regard for the convenience of each, understanding of the limitations of each, and zeal to accomplish this common object.

It is seldom, I imagine, that the funds of the Commissioner's office and of a separate laboratory are so nicely proportioned that the laboratory can turn off promptly all the work which the Commissioner may at some one time wish to put on it or that the Commissioner can ensure a steady supply of work for the laboratory all through the year.

Both the laboratory and the Commissioner have other duties than the examination of foods and drugs, so that it often happens that the one is free for this work when the other is burdened with work of a different kind. Each has to suit the convenience of the other.

The need for this is just as great when the Commissioner has his own laboratory close to his office, but failure to understand the limitations of either office is much more likely when office and laboratory are separated and under different management.

The Commissioner should also understand the amount of work involved in testing different articles. Thus, it is one thing to examine satisfactorily fifty samples of milk, but a vastly greater work to test as many samples of alkaloid tinctures.

The sampling agent can easily overwhelm the chemist with work if there is not constant regard paid to the amount of work involved in the laboratory examination of the samples.

My own experience has been wholly with this dual arrangement of two separate and independent institutions co-operating for a common end.

But after all I cannot see that the proper management of the work is so very different from what obtains when all is under one management. There is always need of the same regard for the convenience and the limitations of each department of the work. Where there are two institutions this regard is not quite so easy to secure, nor the proper balance between the work and expense of chemical examination and of inspection and administration. Thus, in Connecticut the appropriations for the expenses of administration are $12,300 per year and for the chemical work $2,500, or one-fifth as much.

It is obvious that the latter small sum would be totally inadequate to maintain a special food laboratory where the chemical work of the department could be done. By utilizing the laboratory facilities and chemists of an older established institution, however, the total cost of chemical examination and expert evidence is brought within the sum of $2,500 per year.

The Chairman: Gentlemen, if there is no further discussion, we will pass to the next thing on the program. Mr. Charles D. Woods, of Maine, will read his paper on the subject: "What Difficulties in the Administration of State Food Laws Arise from the National Food Law, and How May Such Difficulties Be Obviated?"

Mr. Charles D. Woods, of Maine, thereupon read the following paper on the subject

What Difficulties in the Administration of State Food Laws Arise from the National Food Law, and How May Such Difficulties be Obviated? By Chas. D. Woods, Director of Maine Agricultural Experiment Station, Orono, Me.

That in the enforcement of state food laws there will always be difficulties occasioned by conflict with the requirements of the National law until that happy time when all state food laws are uniform in requirements and the National law is strengthened so as to meet the needs of the consumers and producers in all of the states, is a proposition that needs no argument. The experience of each executive of state laws shows this fact clearly and often too pointedly for comfort. Questions of misbranding and adulteration of enough moment to give trouble in adjustment constantly arise over samples which have been shipped in interstate trade. Upon such questions the National Food and Drugs Act is the highest authority. Upon such questions state laws can supplement the National law, but cannot supersede it. The National law requirements cannot be nullified by State law requirements. Upon questions where an honest difference of opinion exists it is rarely wise to make the meshes of the state law finer than those of the National law. To legislate or rule otherwise is to bring about unfair competition in that the manufacturers and dealers in the state cannot manufacture and trade in goods which may be shipped into the state directly to the consumer without question and without hindrance. To make unlawful the traffic in certain commodities which may, under the Federal law, be safely shipped into the state complicates the food situation by introducing two distinct sets of laws and regulations by which the dealers must govern their trade in the particular state in question, and at once creates dissatisfaction among the local dealers and manufacturers because of the unfair competition thereby brought about. On the other hand, it is too evident to require demonstration that the National law is often unable to protect a state from the introduction and sale of undesirable food and drug materials. To amend the National law is a slow and difficult matter. And usually it is necessary for some of the more advanced states in food and drug control to enact laws that shall protect more fully than the Federal act. To steer between the Scylla of the disadvantages of the state laws differing from the

National law and the Charybdis of imperfect protection to the users of food and drugs within the state is a problem that demands great wisdom on the part of the state executive. If within the limit of ten minutes, or indeed if without limit as to time, I could furnish chart and sailing directions for this dangerous strait, such an achievement would give me a right to a feeling of pride. But I have not the needed wisdom. If I may suggest one or two ways in which we have been able to be helped by the National law it will be all I can hope for.

The long delay between the initiation of a case under the Federal law and its final settlement is often so unsatisfactory and troublesome to the state executive that he hesitates to commence such action and prefers to depend on local laws to adjust the matter and rectify the offense. To the layman and the state official these delays in National cases seem unnecessary, and even inexcusable. But the disadvantage of delayed judgment is more than counterbalanced by the advantage gained in local support. Dissatisfaction and antagonism from the local dealers, wholesale and retail, is one of the greatest difficulties with which the executives of the food laws have to contend, and if at any point this may be avoided it greatly simplifies the matter of enforcement. Oftentimes the good will and co-operation of the local dealer can be obtained by taking up questions of adulteration or misbranding under the National law instead of the state law. Take, for example, the question of low grade feeding stuffs. A cottonseed meal, a cattle food coming within the requirements of the National as well as the state food laws, is shipped in interstate commerce, and found by inspectors in the possession of a local dealer. The goods are sampled, analyzed, and found to be at variance with the guarantees. Instead of taking up such matters with the local dealer in whose possession the goods were found, and prosecuting, and once for all eliminating that dealer from the ranks of food law sympathizers, the question may be taken up under the National law and the blame for shipping low grade material may be fixed where it belongs, with the shipper or manufacturer of the goods. All that is necessary in such cases is to be sure that the sample properly represents the goods, that the analysis is carefully made, and that papers to prove interstate shipment are obtained. These conditions can nearly always be fulfilled.

It must be remembered also that the general guarantee with serial number is now quite generally recognized by the various state pure food laws as the equivalent of a written guarantee and exempts the local dealer from blame in those cases when it applies and in such instances the matter can only be taken up under the National Act. While uniformity is desirable, it must be realized that the National law, designed to cover and protect all sections of this broad country, cannot, however, in one statute suit conditions existing and opinions prevailing in such widely separated states as Maine and California, Florida and the Dakotas, and that the wise course is to use the Federal law where possible, and depend on the local law to correct local cases and local conditions.

A recent decision declaring unconstitutional a state law could have been avoided if instead of attempting to nullify the requirements of the National law in the case the state law had attempted to supplement those requirements, and thus bring the regulations to suit local conditions.

The committee of this association on co-operation between the National and State food officials has very ably and very thoroughly discussed this phase of the work in a recent circular issued from the office of the Secretary of the Department of Agriculture. In this circular the vital importance and necessity of co-operation is recognized and the statement made that "close and cordial co-operation between the Federal Food and Drug Inspection branch laboratories and the collaborating officials in the states where such laboratories are located has resulted in inestimable benefit to both the laboratories and the collaborating state officials," and also that "the collaboration of Federal and state chemists has resulted to the mutual advantage of all concerned by bringing about greater efficiency, together with uniformity of methods."

In other words the key to the situation is co-operation. In Maine in order to overcome or avoid difficulties of administration occasioned by differences in the law, we use one law to supplement the other. We use the state law upon local questions, and where proof of interstate trade or shipment cannot be established. And we use the National law upon goods which have been shipped in interstate trade, and to which the National law with its regulations properly applies.

Mr. Woods, of Maine: I move that a committee of three be appointed as a nominating committee to bring in nominations for offices of Section "A." (This motion was seconded.)

The Chairman: Gentlemen, you have heard Mr. Woods' motion that a committee of three be appointed as a nominating committee to bring in names of members for nominations for the offices of Section "A." This motion has been seconded, so those in favor of this motion will please signify by saying "Aye," and those opposed "No." The "Ayes" have it, and it is so ordered.

Mr. Allen, of Kentucky: Mr. Chairman, I move that we reconsider Mr. Woods' motion, and that a committee on nominations be appointed, with a view of simply offering the list of officers for Section "A" as they exist. (This motion was duly seconded.)

The Chairman: Gentlemen, it is moved and seconded that we reconsider Mr. Woods' motion; those in favor of this will please signify by saying "Aye," and those opposed "No." The "Ayes" have it and it is so ordered.

Mr. Allen, of Kentucky: As a substitute motion, I move that the list of officers as appear on the program for Section "A," be elected to serve during the coming year. (This motion was seconded.)

The Chairman: You have heard the motion, gentlemen; those in favor of it will please signify by saying "Aye," and those opposed "No." The "Ayes" have it and the Secretary is instructed to cast the ballot of the meeting for the officers as they exist.

The Secretary: Mr. Chairman, the Secretary hereby casts the ballot for the officers of Section "A" as they exist, and as is shown on the program, these officers to serve for the coming year.

The Chairman: The Secretary has cast the ballot for the officers as they already exist, to serve the ensuing year, and they are therefore declared duly elected to their respective offices.

The Chairman: Gentlemen, we will next hear the paper which has been prepared by Mr. J. F. Tilford, of Kansas, on the subject of "Difficulties of the Sanitary Inspector."

Mr. J. F. Tilford, of Kansas, then read the following paper on the subject: "Difficulties of the Sanitary Inspector."

Difficulties of the Sanitary Inspector

By J. F. Tilford.

Enforcement of the Food and Drug Laws show the fact that today there is little adulteration of foods and drugs, when we use that term as meaning the wilful adding to any product of a harmful or deleterious ingredient; or, to put it another way, the lack of proper purification or standardization. The condition exists then of having to deal largely and nearly altogether with the question of labeling, of having foods and drugs bought and sold for exactly what they are—of conforming to recognized standards, and that there be no deception as to weight, contents, or misrepresentations of any kind regarding the article.

On the other hand, when we consider the term adulteration in the restricted sense, meaning having added to the product some injurious ingredient, as by contamination, through lack of proper sanitary methods in the manufacture and handling, we come at once to that phase of the question which means the handling and marketing of food and drug products through all the varied avenues of trade, to the consumer in a clean and wholesome condition; which means proper sanitation. That is apparently the greatest question now before the Departments in enforcing the Pure Food Laws, and the people in so far as they have been educated and aroused to the necessity of proper sanitation as it applies both to habits of living and what they eat, are looking to their health departments and food,

dairy and drug commissioners to handle this complex and difficult question.

The health morals and safety of the people demand proper sanitation, not only as it affects their living but their eating. To bring them to this last point has been a hard and laborious task, and it has come only within the last few years. Once awakened, however, they have given us our Sanitary Laws, first; generally speaking, for the betterment of their living conditions in the abatement of nuisances, improving of water and sewage conditions and the keeping of our more populous places in a more cleanly condition. From that point they have been led to understand the real significance of sanitation as it applies to our food supply, and as a result most of the states, and now many of the cities have Sanitary Laws governing the preparation, sale and distribution of food and drug products. Charging some Department or Commissioner with its enforcement, and giving the right to make necessary rules and regulations, having virtually the effect of Law, to accomplish for them that which is their inherent right, a proper protection of health of the employes and the ensuring of a pure and wholesome product to the consumer.

With what difficulty some of our Sanitary Laws have been wrung from our Legislatures you all know only too well, that it is always our first obstacle, and one we often never pass. The reason is, I think, clearly given in the statement made by one of our Legislators who said: "Sanitation is a disease of the brain, fostered by the imagination of a few, for the purpose of securing appropriations and apparently having something to do."

This, I believe, states clearly the very greatest problem of all to be overcome in obtaining proper sanitary laws, and after having them of being able to properly enforce them. The people must be educated to know what sanitations is. They will then want it, and wanting it the rest is easy, for when the people as a whole want a thing they get it, the insanitary place would soon go.

The majority of the people are ignorant of what constitutes sanitation, and do not realize the dangers in insanitary conditions. One of our own doctors argues, and believes his theory correct: "That the most healthful children are those who were raised in dirt." His scientific deduction being that they are immunized to all diseases by the absorption of germs. The kitchen door of the ancestral mansion on the Rhine opened into the cow barn; so to our German friend cow barns in close proximity to the kitchen are all right, he can see no reason why any one should object. Other races and countries have customs which now are not approved, and it takes education and hard work to show the people of today some of these old customs are wrong, that our present knowledge of Bacteria and diseases and the contamination of foods, show the necessity for other methods of doing things.

What is the feeling of the Inspector who says to the restaurant keeper: "This place is in a filthy, insanitary condition and will have to be cleaned or closed at once"; from his answer, "you just show us what is dirty and it will be attended to," you realize they do not know. Later you are called in to see with what strictness your orders have been carried out, have you always the heart to tell them they are still dirty, they have done their best; are proud of what they have done, would be clean if they knew how, but do not know. Thus we have the ignorance that makes the problem the greatest obstacle to be overcome in effecting its solution.

In educating the public in matters of sanitation the difficulty is to get the people interested, to so present the facts to them that the consumer on the one hand sees the necessity for sanitary conditions from the standpoint of health and right living, and the manufacturer and dealer on the other, from the standpoint of right and a realization of the responsibility they owe to the people, or if that is not possible, of necessity for business reasons. They often must be shown it means dollars and cents to them before their co-operation can be obtained.

The reasons for sanitary requirements must be shown. The line of demarkation between the good and the bad clearly drawn—the filthy, insanitary place, compared with what it should be. In Kansas we have tried to take all parties concerned into our confidence by giving the people freely the information as to actual conditions found, showing them what the Department is doing, what it wants to do, how they can assist, and what must be done to correct the evil. This work has been carried on largely through the press, from which we have had a hearty cooperation. Dr. Crumbine carried on during the past year what was called the "Health Department" in one of our largest papers having a statewide circulation. Thus was put squarely before the people the question of proper living and with it the necessity for proper sanitary legislation. They are beginning to understand its importance and necessity, regulations which were ridiculed a few years ago are now considered indispensable and conditions formerly tolerated have been legislated out of existence. The common difficulty of lack of funds and inefficient health officials and inspectors, due largely to politics, has been caused by a lack of understanding on the part of the public, thus not only withholding funds but not demanding the efficient service they should have. The public should demand the service to which it is entitled and should furnish the necessary funds for such services.

Nearly all lines of business have in the past few years organized trade associations, and it has been our endeavor to have every line of business so organize. This enables them as an association to work out along some practical line some of these problems, at the same time giving the Department the opportunity of dealing directly with the association. Our experience is that the majority of any association always stand for the recommendations of the Department, thus we have their assistance in many things which if undertaken without this co-operation could not have been as effectively accomplished. One association issuing certificates to its members requires the approval of the Department before certificate is issued. At any time an Inspector finds one of their members conducting his place in an insanitary condition, if notified, the association requires immediate compliance with the requirementes or revokes the license.

Well trained, high grade men with a clear vision of the opportunities offered in the work of Inspection, is an absolute necessity in this work. They come in contact with people of all classes, representing the different conditions of living and education, each person representing a different problem which must be handled in its own way. He must be a diplomatic, tactful and resourceful person. You can condemn a man's good, cause him to remove from sale old stock and otherwise go after him for violation of the Food and Drug Law, but when you go to tell him his place is dirty, possibly he is dirty himself, that is a different problem and must be handled in the way that fits the man, for you must get his co-operation, without that whatever you accomplish is merely temporary. It is necessary that you go after him rather roughly, but you appeal to his pride, you point out clearly what must be done and make him see that which he never realized before and know that you are right, when you are through, he likes it, will do his best, and is FOR the Department.

There must be absolute uniformity in the work on the part of the Department and Inspectors for there is nothing that will so quickly discourage a dealer as to be told one thing by one Inspector and differently by another, or who is not told in a convincing way of the requirements and the reasons therefor. When you have the co-operation of the man in a permanent business, you have one who is working for you night and day. He becomes a booster, a sanitary educator in his community. He has been shown that cleanliness means not only dollars and cents to him, but is right, he owes it to himself and the public and he conducts his business on that plan. Not all are like this, a few who stand at the top and from this they range on down to those who make an honest effort but do not know, to a class representing about ten per cent, who should not be in business at all, who only keep clean or so much as they can, because they fear prosecution. A class generally dirty either because they are lazy or do not know how to be clean, and with which you can do little for not being permanently located you have little opportunity for reinspection, thus to gradually educate the man who is interested in his business and wants to improve.

It has not been hard to convince either the public or the manufacturer and dealers that certain practices must stop and general conditions be improved. The pop manufacturers found using water from a well in the center of a cow lot, made a hasty change. It was not hard to show this water was contaminated, and it will be interesting to you to know that experiments for our Department, carried on by Professor C. C. Young, Chemist for the State Water Survey, showed that bacteria is not killed in carbonated beverages, which has always been the prevailing belief of bottlers.

The bakers are fast seeing the necessity for wrapping their bread, the consumer and competition forcing this,

which the bakers have been slow to take up and in many instances so strenuously opposing. Investigations carried on by Professor J. T. Willard, of the Agricultural College, Director of one of our Food Laboratories, showed the wrapping of bread did not increase the acidity and the life of the bread was prolonged from two to three days. We must show what we recommend is an improvement, and a bettering of general conditions. Business may be slow to take up with some sanitary requirements, they cannot always see germs or other forms of contamination, but can see money. Sanitation leads to increased standards and efficiency in any business; means better business. The dirty man will not long be a competitor. Commercialism is often the first aid to sanitation.

The question of the proper handling and icing of oysters was taken up direct with the Express Companies and at a meeting with their representatives there was worked out at once a solution of the whole difficulty, thus accomplishing in a very short time what would have taken our Inspectors months to accomplish. At that meeting the story was told of an express agent who accidentally spilled a tub of oysters on the car floor, part of them falling on a dog lying nearby. The agent was in great distress as to what he should do, as he would have to pay for the oysters. His helper came to the rescue with the advice: "Hell! nothing sticks to an oyster," so they proceeded to scoop the oysters back into the container and they were eventually delivered to the dealer. Education or inspection cannot check all such conditions and happenings, and some will always shirk their responsibilities.

Foods and drugs, manufactured, handled or sold in establishments where no attempt is made to determine whether or not the employees are affected with any communicable disease, is today a problem, squarely before our Departments of Health, and is one of the greatest difficulties of the Sanitary Inspector. It is an entirely different question when we come to make a medical examination of the people themselves. The employer is generally made responsible for compliance with this provision of the Sanitary Law, but we know little is done in keeping diseased people out of our factories and stores, except in so far as an employee may plainly show he is suffering from some disease. There is no medical inspection, yet the Inspector will see many cases that should be investigated. But can he, of his own accord, require that person to submit to a medical examination? Not many of us, I believe, have a Sanitary Law strong enough for that, the people as a whole have not been educated to that point. It should be required, however, that every employee have at least a medical certificate showing freedom from all communicable diseases.

This question was taken up with several of our largest factories and it was finally agreed they would require their employees to undergo a medical examination. The results of these examinations fully justified all the beliefs of the Department as to the employment of diseased persons in places where our food and drug products are handled. If these conditions exist in our largest factories, run by system, under careful management and inspection in all its details, where efficiency is the aim, what must we expect to find in our smaller establishments. These conditions exist! What is the Sanitary Inspector to do about it? We have attempted to handle this question largely through our County Health Officers. That, however, is getting at only a very small part of the trouble.

Our Departments are usually overloaded with work. We have had in Kansas not only the enforcement of the Food and Drug and Sanitary Law, but the Weight and Measure and Hotel Laws, all with six field men and now but five. We have had, therefore, to depend largely on our County Health Officers for assistance and, for the sake of uniformity, efficiency and training in the work established the Summer School for Health Officers. The third session of this school will be held at the University this month. It has been more than successful, each year showing an increase of attendance and interest. It is doing a great work for efficiency in sanitary work of all kinds.

With a small force of Inspectors the work must of necessity be more or less of a perfunctory routine, they cannot do properly the large amount of inspection work that must be done, giving equal attention to the large and small places. The greatest results are to be gained by re-inspection within a time given for compliance with the requirements. That cannot always be done. In such cases we call on the Local Health Officer or City Marshal for assistance. Results are obtained in this way, but not always the best results. The local man being too often hampered in his work by local politics or other conditions which make it impossible for him to rigidly enforce the Law. We have found the local man does not get the results obtained by the State man.

Some of our most numerous problems have been the killing of animals in the open, and in hog lots, sleeping in restaurants and bakeshops, feeding of dead animals; and in one case in particular the slaughter house being maintained in connection with a railroad stock yards for that very reason.

Railroad camps, with which we have done special work in requiring Railway Companies or contractors to improve the conditions.

Hotels—one of the hardest classes of business to handle, and it is interesting to note one of the cleanest of these was a cheap lodging house, 25 cent beds and serving 10 cent meals.

In every walk of life a certain per cent of the people are naturally and inherently insanitary in their habits and methods of living, they do not know and we have not been able to make them understand. The Inspectors' work, therefore, will never be completed, for so long as the human family exists dirt will prevail and we can only hope to lessen the evil by education and persistent effort. As stated by the Bishop of Michigan: "The coarse and crude materialism of our industrial lives, the lowness of our ideals, the increase in material wealth which has too often resulted in human filth," is the difficulty to be overcome.

Mr. Winkjer, of Minnesota: There is one difficulty mentioned in one of the papers,—the remedy suggested to have a lawyer in the department to handle the legal questions. I do not suppose that there is a department that could arrange this, and I think I would state the condition that we have in Minnesota. The legal questions are submitted to the Attorney General's Office. Among the members of the Attorney General's Office force, one is assigned to handle our work entirely. I find it quite satisfactory, although one that has given his special attention to the enforcement of the laws of the Dairy, Food Department, would probably do better, but in the working out of the problem in that line, I find we do well to take the more difficult cases, and have them under the charge of this attorney from the Attorney General's office, and then we have learned too that the County Attorneys throughout the State—some of them do very good work. Some of them do nearly as well as the attorney we have from the Attorney General's Office, and when we have a difficult case, we get assistance from the Attorney General's Office, or if we have it in the county, we get a lawyer there so that in that way we are tolerably well helped out in legal maters.

Mr. Wallis, of Idaho: Gentlemen: I think that this phase of the subject has to be considered. The difficulty with the commissioner is when he gets cases, to have them prosecuted. The County Attorney is elected every two years, and that phase of political life enters into it, which makes him feel that he don't want to antagonize the interests. Being an attorney, and having practiced in our State for the last twenty years, I have prosecuted our cases in every branch of our work, and I have prepared for the use of the deputies a set of criminal cases. and have had our law amended where we can go into the courts ourselves, and prosecute our cases. If we have to have a jury trial, I then ask the help of the County Attorney, and where we have cases appealed to the Appellate Court, the Attorney General is designated as special prosecutor for that court, but if the commissioners could get sufficient legal experience to go into the courts under those cases, and prosecute the cases, I do not think that any County Attorney would object, because they do not want to antagonize business interests, and they would gladly be relieved of this work. The County Attorney finds out that it is against some big man of the town, and he don't feel like giving it as much of his attention as it would require. When you find that a party has violated the law, the best thing is to invite him into Court, and have the matter adjusted right there, and nine out of ten times you will never find these people to go to an attorney and pay him a fee to get them out of trouble.

Mr. Tilford, of Kansas: Do you find the Justices of the Peace willing to cooperate in that kind of work?

Mr. Wallis: In the last two years, we have had 927 successful prosecutions. Of course, we don't prosecute every violation of our law.

Mr. Hansen, of Utah: We have had a great deal of difficulty in the State of Utah, in getting prosecutions, and we are dependent upon the County Attor-

ney, and we do get discouraged,—as Mr. Wallis says. Not being an attorney, I am satisfied in a great many cases that if we were permitted to write our complaints and prosecute the cases, that we would get better results. But to do this, we would have to change the Constitution of our State. I am satisfied that a Commissioner who is studying these pure food laws for four or five years would do more than the lawyers who seldom run up against them.

Mr. Woods, of Maine: I don't know whether it would be of any benefit to anybody here, but Maine is a little meek in prosecution. We have had a game law for a good many years. You can go up in Maine, and if you have the misfortune to shoot a man, you may get off easily, but if you shoot a cow moose,—woe be unto you. We have means of prosecuting civilly and criminally, and we have found the civil prosecution to be an exceedingly helpful implement. A man that has violated a law hates very much to have a criminal record. There are also a good many men that have violated the law, that you know pretty well, and that you know they did not intend to be criminals, and you also dislike to bring a criminal case against them,—so that nearly all of our cases are brought in civil cases, and we have found it to be exceedingly advantageous. A man that will fight and try to win out on a technicality to avoid a crimnial record, will not do this in a civil case. When a man comes before me, and I find that it is impracticable to forgive him, we give him his choice of having the case brought into court, or settle it civilly, and if that could be introduced in your courts, I think you will find that method will relieve a number of your difficulties you have in trying to get the State's officers to take up these cases.

Mr. Barney: Do you mean that the man pays the fine?

Mr. Woods: Yes sir; directly to me, and I give him a receipt for it, and I pass it over to the Court. It requires a little courage on the part of the administrator of the office.

Mr. Barney: What court is that record in?

Mr. Woods: In either court you want to.

Mr. Abbott, Texas: How do you draw that complaint?

Mr. Woods: The civil cases I bring it in my own name.

Mr. Abbott: You sue him for the penalty imposed upon him by the law?

Mr. Woods: The law gives me the right to sue him criminally.

Mr. Abbott: If you bring it against him, for something he ought not to do, it is a criminal action?

Mr. Woods: No sir; it is a civil action.

Mr. Abbott: It looks to me like it is giving it a number of names.

Mr. Woods: Very probably, but he comes out of it not with a criminal record, but with a civil suit.

Mr. Abbott: I would like to see how such a complaint is drawn. I do not understand how a man can come up and pay a fine that has violated the law.

Mr. Woods: I am no lawyer, I am simply telling you facts. I will also say that this whole procedure is handled in my office in entire accord with the regulations given me by the Attorney General.

Mr. Abbott: I would like to be enlightened upon that point.

Mr. Woods: The whole point is this,—the way the law is administered,—what we do is simply that I appoint a hearing of the man, and he comes to my office, and I tell him I am going to sue him. I write him a letter, and say, in substance, that, in my judgment, he has violated the law, and it is my intention to sue him at the next term of the Supreme Court, and I am going to sue him for One Hundred Dollars and costs, and tell him that there have been no court costs to date, and stating if he cares to send a check, I will settle the case.

Mr. Abbott: You sue him for a hundred dollars for what?

Mr. Woods: For the fine that has been imposed by the law. I sue for it in my own name, and I could compromise for whatever I wanted to.

Mr. Abbott: You sue for a fine but he has never been fined?

Mr. Woods: Yes sir; I tell him I am going to sue him for the fine that is imposed for the violation of that law. I would have to prove it if he contests it, but he don't contest it.

Mr. Abbott: What method have you got to arrive at a compromise?

Mr. Woods: As a rule, I think the man should reimburse the state for the expenses it is put to.

Mr. Abbott: If he pleads guilty to you, it is a civil case, and if he pleads guilty before a justice of the peace it is a criminal case?

Mr. Woods: Well, I could bring it as either before the judge of the court. I am doing this entirely at the advice of the Attorney General.

Mr. Abbott: Are your civil suits ever contested?

Mr. Woods: Yes sir, we have sued for it civilly and always recovered.

Mr. Abbott: Does the person ever appeal such a transaction?

Mr. Woods: Well, if he does not do anything, I take his case right to court.

Mr. Abbott: And then it becomes a criminal action?

Mr. Woods: Yes sir.

Mr. Abbott: Then he does not dare to contest you, because if he does, you will bring it to the court and make a criminal case.

Mr. Woods: No sir; I can do it either way. One hundred dollars is the maximum fine for the first offense, and two hundred dollars the maximum fine for the second offense.

Mr. Abbott: They simply all know you to be a good fellow?

Mr. Woods: They know me that I would never bring a case on a mere technicality.

Mr. Abbott: I was certainly glad to get hold of that piece of information. If the Food Commissioner can be the Court and the Commissioner, I can see no reason for ever having any trouble, But I believe we all have the same sort of troubles as in other places. I had some trouble in my State. When I found that I could not get prosecuting attorneys to do their work properly, I wrote to the Governor to know if I could not start an impeachment proceedings against the Attorney, and he advised against that, and advised me to use publicity, which I straightaway began to do. One County Attorney to whom I had sent some complaints formally drawn, and whom I had asked to have them signed, wrote me back that, on account of the prominence of the party involved, he could not get anyone to sign the complaint, and I wrote a letter to him, and told him that it was a pretty come-off, that the officers of the law in his county could not sign the complaints, because the party involved was prominent, and I gave my letter and his reply to the press, and the next morning he told me not to send anyone down there, that four of them had plead guilty. It did the work. I had a letter from another attorney somewhat similar. I wrote him back that if those cases were not disposed of, and if we had to be put to the trouble of hunting up somebody to sign our complaints, I would give the information to the press, and in the next few days, I learned that all five of them had plead guilty. I had another complaint the next day from a man, and the County Attorney happened to be on the other side of the political situation, and he wanted to show me his authority, and I immediately gave that to the public press, and we got action. That has been within the last few weeks. Since we have begun to give these facts out to the press, they have begun to get busy when we send complaints to them. In another case I had in court, the County Attorney informed me that we had a stacked jury, and I said "Did you know that that jury was a stacked jury, before we tried that case," and he said "Yes." A little while after that, I filed twenty-one complaints in his court, and before these complaints were to be tried I called the County Attorneys and Justice of the Peace, and the Sheriff and I told them all of the past experience we had had with a stacked jury, and I told them: "I have called you here to put you on notice, that if there should come up after the trial of these twenty-one cases that we have there a single evidence of a stacked jury, or fraud on the part of the judiciary of this County, I expect to get up before the Court, in the midst of the trial, and tell the Court that it is a stacked jury, and refuse to go further in the trial of the cases, and I told him he could put me in jail for contempt of Court, but if you do, you will get a notoriety over the State, that you won't appreciate. There is only one way to do those sort of fellows,—and that is,—to run right into them, and butt them. I am getting sick and tired of that kind of opposition to the Food and Drug Law enforcement in the State of Texas.

Mr. Woods, of Maine: Possibly I should say this,—that I am by the law directed to prosecute all offences, and that I am entitled to the assistance of the attorney for the State, and the attorney for the State in the various counties, but that I am the prosecuting officer under the law.

Mr. Barney, Iowa: We have more or less trouble with county attorneys in Iowa, but we have a provision in the law, which says that we may appoint an assistant to go into the matter, and I generally take it up with the man in a letter saying to him, that I will have to have some help. Frequently we have been able to work out a great many of our problems by having the Inspector

work as County Attorney. Three or four of my Inspectors, I would as soon trust before the justice of the peace court in a case, as I would any county attorney. We fix up in the department "informations" that they must select from, and they file these informations, and they go to the gentlemen and say, "We have got a good case against you, and we gave you warning several weeks ago, we are going to get after you, and don't you think it would be better for you to plead guilty to a fine of fifty dollars or so, than to have the notoriety, you would get out of it, if suit was brought:" In a number of cases we get them to plead guilty to a fine of twenty-five dollars, and they thank the inspector, and I think that the people are served just as well by methods of that kind, as any other way. I suppose it is very largely due to the fact that we have not had a great deal of politics in our department out there. I have had several inspectors on the force a long time. The government has never interfered with my department, and my inspectors are pretty well experienced in this work.

Mr. Woods: All of our cities have probation officers, and a good thing is to prosecute the offender; have him fined, and then let him out on probation, in the charge of the probation officer, for twelve months. His fine is suspended, and if he is good for twelve months, he does not have to pay his fine.

Mr. Potter, of Connecticut: I would like to ask Mr. Abbott a question,—Do you ever have any trouble with your publicity request? Do you have trouble with the papers?

Mr. Abbott: We do sometimes, but we do not have any trouble getting it into the paper when the court proceedings have been started. I prosecuted and convicted a packer down there once, and the case was written up in the newspaper the next morning. We do not have as much trouble now as we formerly did. We treat the reporters well and we can always get them a little news.

Mr. Rose, of Florida: Under the Florida Law, the Attorney General and the Commissioner of Agriculture at the head of the Pure Food Department notify a man as having misbranded some goods, and appoint a day for him to appear for a hearing, and in nine cases out of ten it is settled by the Attorney General and the Commissioner by his paying the costs of the procedure. The man in many instances takes advantage of the interstate proposition. We hold the manufacturer responsible, in turning over the papers to the proper United States District Attorney. Our prosecutions have been very few, but have been successful.

Adjournment.

SECTION A—AFTERNOOON SESSION.
WEDNESDAY, JUNE 18.

Mr. M. E. Jaffa, of California, Vice President of Section "A", occupied the Chair in the absence of Mr. James Foust, President.

The Chairman: Gentlemen, you will now come to order. The first order of business on the program for this afternoon is the reading of a paper by Mr. R. M. Allen, of Kentucky, on the subject: "Practical and Effective Methods for Milk Inspection."

Practical and Effective Methods for Milk Inspection



By R. M. Allen, Head of Food and Drug Department, Lexington, Ky.



THE present methods of milk inspection in Kentucky are the result of about fourteen years' continuous work. The first half of this period was devoted to the examination of milk for skimming, added water, and antiseptics. With the elimination of antiseptics and the raising of the fats and solids to the standard adopted under the law, we thus reported the milk supply to the state as being pure.

CHEMICAL STANDARDS.

Today we are not gauging milk by the standard which has been adopted for the whole of the United States, but by the standard which is demonstrated by the dairymen's own herd. The standard adopted under the laws caused dairymen and the milk dealers to water or skim the milk close to the limits of the standard. During the past three or four years no cases have been brought until after examining the source of the milk, and, in several instances we have won cases against dairymen for watering where the fats were between 4 and 4.4%, and the solids not fat between 8 and 8.50%. We lose no cases where this method of inspection exists, and the result has been a gain of at least one per cent in the average fat content of the Kentucky market milks. The method of inspection for analytical examination is to find the quality of the milk received by the dairy lunch, restaurant, or milk depot, and hold to that standard. If the analysis shows deficiency on the part of the dairyman's milk, an inspector is sent to make a herd test. With the proper systematizing of the work, we have found this method of inspection to be practical for our limited force, even in covering the whole of Louisville's milk.

SANITARY WORK.

The feeding of distillery swill to dairy cattle and the decision of the court that the swill statute of Kentucky had been repealed by the state pure food laws, began the milk sanitary work of the Kentucky department in 1905. After a year or more of investigation and about one hundred jail sentences the swill dairy was abolished. From this the inspection spread through the ice boxes of the grocery store and the city milk depot, and out into a systematic tramp through all of the farm dairies of the state. The sanitary inspector made pencil pictures of conditions at first; then the government score card was adopted, and the dairies of the state were scored once, twice, and, in some instances, three times. In the summer of 1910 we supplemented the scoring of the dairy with a general bacteriological count of the milk as received in the market. We found that the scores and the counts disagreed. One question was as to the relative value of the score in milk inspection work, and the other as to the relative value of the bacteriological count. In 1912 the general counting was supplemented by the presumptive endo media test for B. Coli, the testing for sediment in the milk, and the taking of samples from the various processes of the depot and the market to definitely find and convince the dairymen as to the practices responsible for high counts. The dairymen answered the first report of high counts with the reply that the large number may have been "good" or "harmless" bacteria. The B. Coli counts answered this argument. Some examples of the work for 1912 will illustrate the effectiveness of the present method of inspection.

(a) I gave one of the world's best equipped dairies a score of 99. The subsequent report of the bacteriologist showed a variance in the bacteriological count of the product of the dairy ranging between 40,000 and 800,000. My eye had listed all of the equipment, but had failed to detect deficiences in the *method*, in the use of the equipment. The dairy was again scored in connection with the taking of many samples from the milking pails, from the cooler, the bottler, and so on. Samples of water in the buckets, ready for milking, and cans ready for receiving the milk were taken, to determine efficiency of sterilization, and, after having this further information at hand, the score of 99 was lowered to about 85.

Another dairy which I inspected personally, and gave a score of 89, was found to be delivering June milk with an average count below 5,000. Had the inspector stopped with the scoring, it would have been unfair to the latter dairy to have published a list of scores showing 99 for the one and 89 for the other. The result of this comparative work with respect to the score and the bacteriological count carried on among the certified dairies, farm dairies, and so on, leads me to conclude that it is impossible for the inspector, without the aid of the veterinarian and bacteriologist, to accurately list the correct methods in the dairy, especially where scores are over 80. The eye can detect the equipment, but not accurately the method. The score is still being made use of. The items of method and equipment listed thereon are by far the best, the most accurate, and the shortest compilation of the exact information necessary for the dairyman to follow in the production of pure milk. It is but one of the means necessary in methods of inspection, and alone insufficient.

(b) Samples of the milk obtained at the time of delivery to a hospital were found to contain about 3,000,000 bacteria per c. c., and to contain a count

of about 49,000 bacteria of the B. Coli group. The dairyman was astonished at the finding. He owned his farm, had a new milk barn, and a new milk house. We took the bacteriological sample box and secured samples of the manure dust from the dusty dirt floor, samples of washings from the cows' udders, a section of the strainer rag from a can being filled in the barn, a sample of the milk, and were able to show the dairyman just why his product contained the B. Coli and the large bacteriological count. He needed no further lesson. The concrete floor was soon laid, the cows' udders were regularly washed, the steam sterilizer was put to work in the milk house, and he is now delivering milk of a count within 25,000.

(c) Another dairyman asked the inspector to be allowed to see the counts, and came to the office on the day designated. "Let me see the plate for number 1419" the dairyman asked. This particular plate showed a count of several hundred thousand. "Your test is all right," he stated, "that sample was from the bucket of one of my dirtiest milkers, and was covered with dust when the sample was taken." A sample which he had milked himself into a sterile bucket and from a clean udder showed a count of less than 500. He was convinced.

The bacteriological counting has been showing the effectiveness of pasteurization, and that the holding of some similar system is necessary for the control of bacteria through this method. The sample box is also taken through the processes of the milk depot.

There are several periods through which the investigator travels before arriving at the proper methods for sanitary milk work. The first is ignorance of the fact that the bacteriological counts are an accurate estimate of clean milk, and an effort to minimize the bacteriological count through such misinformation to the dairyman as, for example, that the count may be wholly or partly of "good."

It is the condition of the high counting bacterial action on the milk at a time, we do not know, before turning into clabber, which kills babies. The next period is in thinking that after the dairies have been inspected and the public alarmed with respect to the unsafe condition of the milk supply, and the larger consumption of milk decreased, that the official has performed his full duty. After passing through these periods, continuous work leads to but one conclusion, and that is that contaminated milk is one of the greatest causes of infant mortality, that the production of pure milk, of low bacteriological count, is a very simple process, within the reach of every dairyman, and especially within the reach of that dairyman who does his own milking, with the care which such interest in his product produces.

The sanitary inspector, taking samples from the different processes of the dairy and the market, as well as from the milk itself, in connection with the score card, the bacteriologist, the chemist, and the veterinarian, all working together, all working to show the dairyman and the milk trade as to just what omissions in equipment and method are most responsible for milk contamination, together with occasional prosecution, and publication of counts are the practical and final methods of inspection which, if put to work throughout the country on the part of all of the state and municipal departments would more than cut in two the death rate among children, and would bring greater profit and pleasure to the dairy itself. Such methods of inspection are justified alone from the benefits of the sanitary information which they take into the farm districts.

We had an opportunity to follow out such a course constantly in Lexington during the past year, the state and the city departments co-operating. The average count for the month of May, 1912, of the city, was several hundred thousand. The average count for the month of May, 1913, was 47,000, with a majority of the dairies below 10,000, with disease out of the herds, and with a widespread but not altogether costly change in methods among the dairy farms. No similar record has yet appeared in dairy literature. Further in this connection, these results have been accomplished with such recognition on the part of the dairymen that they have assisted both the state department and myself, as a member of the Lexington Board of Health, in the final drafting of a model milk ordinance which we are offering to the commissioners for future milk work.

Mr. Allen, also produced and referred to in his paper, and remarks, a chart showing the different counts made of the dairies in Kentucky, in the month of May.

A Delegate: How many counts were included in the month of May? Mr. Allen. All of the dairies in Lexington, from two to three counts each. The lowest is 150, and running down in that line, on that list. Practically half of that milk supply is in a certified class. The highest count below is 390,000. The proposition is the practical application of the methods that I have described there, aside from the theory. There is the result—the samples were taken from the city wagons. In the case of the man who is at the top there, he bottles his milk at night. In the case of several other dairymen at the top, they bottle their milk at night. These were all taken promiscuously from the dairymen's wagons, and, as I said, the State has independently checked the city, and we are ready to back up their work. There are certain elements of unfairness that may come into the bacteriologists' counts. A dairy that counts from five to six hundred is probably no better than one that counts from five to six thousand. That count naturally varies between the dairymen. We told the dairymen on April 1st of last year, that we were going to start a publication of counts. The papers contributed their space. There was a good deal of feeling among the dairymen at first, but now it is surely disappearing, and there is very much competition in the race to get at the head of the score card.

Everybody is reading the score card, as it is published in the newspapers, and it is putting the dairymen on their metal. The work in Lexington is being carried further; we have been able to establish in Lexington an efficient laboratory and field inspector. Now the old methods of inspection—of inspecting the dairymen, rating the dairymen, and reporting the score back to the dairy, did some good, but the score was still very high. Now just before closing, I want to say that the Consumers in Lexington were used to six and eight cent milk, but the housewives went on record, by saying that ten cents would not be too much for pure milk, and the milk consumption in Lexington has tremendously increased. I might mention another point in this connection. A dairyman will object to your taking the samples and putting them in an open bucket. They understand that the milk must be protected. The care with which we take a sample has been a very practical lesson to the dairymen themselves. So successful has that method been that we are applying it to soda water pop factories.

Mr. Abbott: I want to ask Mr. Allen a question—who takes your samples for your bacteriologist examination?

Mr. Allen: For the city department, the city inspectors, and for the State Department, Mr. Worthington and other regular inspectors.

Mr. Abbott: Are the regular inspectors bacteriologists?

Mr. Allen: Both Mr. Chambers and Mr. Worthington are. In fact I do not believe we have one man that has not had the B. S. degree.

Mr. Abbott: What salaries do you pay?

Mr. Allen: All the way from twelve hundred to two thousand Dollars.

Mr. Abbott: What do your bacteriologists get?

Mr. Allen: The maximum salary for them is $2,400.00.

Mr. Abbott: This record you have here—are all these records based upon the same conditions? Are they given on the same basis, from the time which the milk is milked and iced?

Mr. Allen: Yes sir; that is, the samples were taken from the market, as the dairymen delivered it, with the history on the card, with its age.

Mr. Abbott: You take the dairyman's word for the number of hours that the milk has been out, after it has been milked, and you get it?

Mr. Allen: Yes sir; because the point of that analysis is to find out what he is putting on the market. This is for the purpose of determining what he is selling on the market.

Mr. Abbott: I do not understand though that this is given to the public, and the man's name, and the number of bacteria found in his milk. The public does not know whether his milk was milked ten hours or eight hours.

Mr. Allen: No sir; but that is a detail that Mr. Helme will take care of.

Mr. Abbott: Whenever the public sees these numbers on this list with these men's names, that is the standard by which they judge of the efficiency and cleanliness of these dairies?

Mr. Allen: Yes sir.

Mr. Abbott: Suppose one of these samples of milk that you took had been out six hours, and another twelve hours, the bacteria count of one was fifty thousand and the bacteria count of the other was 100,000; the public sees that, and they immediately say the man that has fifty thousand is certainly the best.

Mr. Allen: Well, what the public is interested in is what the milk they are getting is.

Mr. Abbott: Suppose we have a milk here that is pretty dirty milk and put in a pail; the bacteria count is made in an hour—the bacteria count is very low.

Mr. Allen: The proposition is, that the methods that I have outlined here is to produce a certain result. When you take a different method of inspection, and produce a different result, you have got to get away from the theory that you have been talking about, and you will find that when you publish the counts of the dairy, that that dairyman is going to see that his count is better.

Mr. Abbott: I understood you to say when I came in that a milk inspector ought to be a bacteriologist?

Mr. Allen: No sir; a milk sanitarian and veterinarian. That is he ought to know the theory and practice of production of good milk, supplementing that he should be a bacteriologist.

Mr. Abbott: Can you get me a man with all those qualifications?

Mr. Allen: I got one the other day.

Mr. Billingsley, of Alabama: Gentlemen, there were a few members of the Association that expressed a desire to see the syrup cannery out there near Mobile at work. The management of the syrup cannery has told me to say to you that you may visit his plant, and that they will be open until about four-thirty this evening. I wish to announce that all those who desire to see this plant, will kindly meet down stairs in the Chamber of Commerce. They will wait for you until 4:30.

The Chairman: Gentlemen we will now hear the paper which Mr. W. B. Barney, of Iowa, has prepared on the subject of "Production of Wholesome Milk—Theory vs. Actual Practice."

The Production of Wholesome Milk—Theory vs. Actual Practice



By W. B. Barney, State Dairy and Food Commissioner of Iowa.



MILK is the secretion of the mammary glands in all female animals known as mammals for the nourishment of their respective young and according to nature it was never intended that this milk should see the light of day, but pass directly from the mammary gland to the stomach of the young. Thus being protected from contamination in any way, being the ideal, the natural and only way of insuring a germ-free milk.

The only mammal whose milk is extensively used as food for man is the cow and the use of cows' milk is of very ancient origin, being at least coexistent with the time of herd domestication, if, indeed, it was not the main cause for such domestication.

Theoretically, it goes without saying, the cow, used for the production of milk as human food, should be absolutely healthy, fed on clean, wholesome food, in proper proportions and amounts, in short, "balanced ration;" should be kept scrupulously clean; milked by attendants at least as clean as she herself; and this milk should come in contact with absolutely sterile utensils only. "Cleanliness is next to Godliness." Health and cleanliness are relative conditions. There is no absolute standard of health or cleanliness, neither can there be. The best definition of health that I have found is this, "Health is ease; ill health is disease." What one man would consider clean another would know was absolutely filthy.

When in 1901 Prof. Koch made the startling announcement that bovine and human tuberculosis were entirely separate and distinct diseases, King Edward of England immediately appointed a commission to investigate this point, consisting of five of the most eminent scientists in that country. These men have spent ten years of time, $380,000 in money, have issued fifteen large volumes on this question, and recommend, not the indiscriminate use of the tuberculin test, for, as they say, such a measure would demoralize the milk business to such an extent that nothing could be accomplished thereby, but they did recommend the elimination, first of the cow with the tuberculous udder, and second, all bovines showing the clinical symptoms of tuberculosis upon a careful physical examination as indicated by extreme emaciation, shortness of breath, etc.; in other words, generalized tuberculosis. It would seem that the time has not yet arrived when the tuberculin test should take the place of brains in the diagnosis of tuberculosis in cattle. This commission reports that Dr. Koch is wrong in an assertion that there is no danger to the human race in the consumption of the milk of the tuberculous cow, or the eating of her meat, but that there is some danger, particularly to infants and children. Were this danger marked, however, we would expect most tuberculosis in those countries where most cow's milk is used, but the facts are that the opposite is true. In Scotland, the percentage of deaths from tuberculosis in man is being reduced more rapidly in any other country and bovine tuberculosis is the most prevalent and nothing is being done or has been done to curb the disease among the dairy cattle.

Dr. Adami of Magill University says, "I examined twenty-five patients ranging in age from seven to fifteen years, inmates of the government school for Indian girls at Calgera and of these twenty-five twenty-four were infected with insipient tuberculosis, and none of these had in infancy or in childhood ever used any cows' milk. Japan, China, India and Egypt and other countries where practically no cows' milk is used by the people, have often more tuberculosis among all classes than we have in the United States."

The dairymen as a class are not well informed as to the theory of the production of wholesome milk, and the keynote in all of our activities for an improved milk supply must be along educational lines. We must remember that these dairymen use this milk in their own families. One of our inspectors visited a large dairy where the customers visited the dairy, taking with them their own receptacles in which to carry the milk home. The array of cups, pails, cans, and bottles was varied in shape, size and contour, but most noticeable was the cleanliness or rather the want of cleanliness. Many of the tin vessels were denuded, showing the bare iron underneath, and a kind of tinware that would be condemned by any inspector if found on a milk wagon. Some of these containers had left in them milk from the previous day and they would undoubtedly blame the milk man if the milk did not keep perfectly sweet and wholesome. This only illustrates the fact that the milk man is much more cleanly and sanitary, however, than the average consumer of milk.

We have frequently found that the consumer will pour milk from a bottle into a small pan or vessel and set it in a refrigerator that is anything but sanitary. Experiments that we have made show that the bacterial count in milk increases much more rapidly when exposed in this way than if put into the refrigerator in the bottle, which is well and properly capped. On this account, we think that those in authority should insist that so far as possible, milk be sold in bottles.

No food product has received the attention, bacteriologically, that milk has, and when we consider the many contaminations to which milk is exposed during the milking and subsequent handling, it is evident that this attention has been wisely directed. The public is slowly but surely being educated to require that a food product as important as milk be produced under proper sanitary conditions. Investigation has proven that without a doubt typhoid, scarlet fever, diphtheria and tuberculosis are communicated through milk. The high infant mortality, especially in summer, has also been found to be very largely a result of the careless production and handling of milk.

The troublesome changes which occur in milk and make it so difficult to handle properly are caused by bacteria. Thus the bacterial content of milk is used as an indication of the care used in the production and handling and bacteriologists consider this method the practical way of obtaining knowledge regarding the purity of a milk supply.

The knowledge that milk is frequently the carrier of various diseases and an extremely good medium for the multiplication of a large number of organisms shows the importance of preventing the entrance of all organisms. Under the present methods of production and handling large numbers of bacteria get into the milk and multiply at an enormous rate. All dairymen should know how to prevent contamination of milk and keep the number of bacteria reduced to a minimum.

A practical device now in use for the purpose of excluding dirt and bacteria from the milk is the covered milk pail. The New York Experiment Station found in six trials that by comparing the open pail with the covered pail that the covered pail reduced the bacterial content 95%.

Experiments conducted at the Iowa Station last year (1912) brought the following conclusions:

1. The sanitary pail makes it possible to keep milk sweet from 5 to 15 hours longer than when drawn in the open pail.

2. 82.9% of the organisms were excluded by the use of the sanitary pail, the average counts being 5,283 bacteria per cubic centimeter for the covered pail, and 30,333 bacteria per cubic centimeter for the open pail.

We have maintained for a number of years that the use of no single utensil in the dairy would do more to give the public clean milk than the covered pail. We do not mean that it is necessary to use some of the patent "contraptions" that are advertised, part of which we believe would help increase the bacterial count. The cleaner and smoother the pail is made, the better. Be sure that all seams are well filled with solder. By the use of the covered pail a large part of the filth that is brushed into the open pail by the head of the milker coming in contact with the cows' flank is excluded.

We have contended and still believe that a larger number of tubercular germs get into the milk by the small particles of excrement being brushed into the milk at milking time than in any other way.

The use of the milk clarifier or separator we think important. Either of these machines should be kept scrupulously clean.

We are going to be a long time in bringing about ideal conditions. That the milk supply has been much improved in most parts of our country in the last ten years goes without saying. In most places the position of milk inspector in a "real man's job" and the more "horse sense" he brings into his work the greater will be his success and the better the public will be served.

Mr. Barney: I want to say one thing in answer to a question that has been asked whether we had made any experiments with milk in Iowa as to keeping it cool, and what effect it had. I want to say that I was much surprised at the result of a little experiment we made a year or so ago. I selected what we termed the most sanitary dairy near Des Moines, and took particular pains to have the milk secured in a most cleanly way, and put it in ice water, in a capped bottle just as soon as it was milked and not permitting any of the animal heat to pass off of it. Six days later I drank of that milk and it was perfectly sweet and good. I think the whole proposition generally rests on getting the milk into a cool place after you milk it, and not permitting it to be exposed to the air or dust. I know it was good. We made some experiments there which I referred to in my paper. Our man was a college man, and we had this inspector go out and fill the milk wagons, part of them to be delivered in bulk and part in bottled milk. We had him pick up samples of this bulk milk soon after it left the plant, and we made a bacteriological count on that milk, and we followed it along until it was delivered to the consumer, and in many instances, went into the home and found that it was put into a very filthy refrigerator. We waited a few hours, and took samples of that milk, after it had been exposed there and in that same refrigerator, we left milk in bottles, well capped, and we found that the bacteria in the milk had increased very much more rapidly in the bulk milk than the milk that had been left in bottles. I think, therefore, that all commissioners should so far as possible try to get laws enacted not permitting the sale of bulk milk.

The Chairman: Gentlemen, we will now hear the paper prepared by Mr. William D. Saunders, of Virginia, on "The Relative Advantages of State and Municipal Milk Inspection."

Mr. Woods, Maine. Gentlemen, I have a telegram I would like to read to you gentlemen: (The following telegram was then read)

"Harrisburg, Pa.,

"Dr. Wm. Frear,
Battle House, Mobile.

Please extend my sincere thanks to Section A for the honor conferred upon me. I thank you for the telegram notifying me of my re-election.

JAMES FOUST,
Dairy and Food Commissioner."

The Chairman: Gentlemen we will now hear the paper by Mr. Saunders.

The Relative Advantages of State and Municipal Milk Inspection



BY WILLIAM D. SAUNDERS, STATE DAIRY AND FOOD COMMISSIONER OF VIRGINIA.



THE necessity for increasing the restrictions which have in the past been placed upon the producers of milk for human consumption as such has become more and more evident to those officials upon whom the responsibility for the health of the public has been placed. The expression "Increasing the restrictions" might be stated differently and instead the following expression might be used, "The carrying out of rules and regulations more effectively which have already been adopted."

It is evident not only to those officials already referred to that the milk supply must be looked after so that more care will be taken in its production, but the consumer and also the producer in many cases realize that milk is liable to be the carrier of certain contagious diseases and that these diseases, usually typhoid and scarlet fever, contaminate the milk as a result of careless handling. Persons whose families are affected with these diseases should use the greatest care so as to make it impossible that these diseases be carried to other families through the medium of the milk.

There is danger also of vessels used for delivering milk going to families in which these diseases may exist carrying the germs back to the dairy and unless thoroughly washed contaminating the milk and carrying the disease into other families.

Tuberculosis also might be carried into families same as those diseases already named when under the same conditions that have been stated.

This disease is also a menace to the health of the consumer of milk when a dairy herd may be affected with it.

In cases where one or more cows may be affected to the extent that they may be throwing off in their fees large numbers of bacilli, it is almost impossible to prevent the contamination of the milk in such cases.

As all parties concerned become more and more satisfied that the production of milk should be more carefully guarded to that extent will the conditions under which it is produced be given closer attention.

Those advocating state control of the milk supply claim that the requirements under which milk is produced should be uniform all over the state and that where the control rests with the different municipalities that each city or town has a different standard for its dairies.

And further that any dairy that is allowed to sell milk at all should be allowed to ship its milk to any point within the state in which it may be produced without further restrictions that there may be two cities in a state, one requiring the tuberculin test as a prerequisite, the other having a high standard for cleanliness that in neither case would the milk supply of one be acceptable to the other.

The advocates of the state control claim that this condition should not exist and could not under state control.

They claim further that state inspection could be made as effective as might be necessary and many objectionable features would be removed by inaugurating state inspection and eliminating municipal control.

Those advocating municipal control claim that the state cannot bring the conditions in the dairies to as high a degree of efficiency as can be accomplished by municipal control; that it is a proposition that can be brought up only by certain stages; that it is a work of years; that it cannot be uniform; that the state would have to accept conditions as they would be found, which would be anything but uniform. The requirements, it is true, might be uniform, but these requirements it would be found to be necessary to change from time to time in the interest of the consumers of milk and that the conditions of lack of uniformity would be found to exist even under state con-

trol. Those advocating municipal control further claim that it requires constant attention to protect the consumer from impure milk; that it is necessary to have the dairies examined frequently to guarantee that they will maintain those conditions which are regarded as absolutely necessary for the protection of the consumer; that with constant effort and only with constant effort can improvement be obtained and that it frequently requires years to get their milk supply in satisfactory condition and that to change to state inspection would in a great many cases mean lost ground which could never be recovered.

What appears probably the best thing to be done would be first a full recognition of the difficulties presented and then for all parties concerned to develop some system of co-operation with state and municipal departments which would be able to solve many questions which appear difficult of solution under different conditions.

Under this system where advancement might have been nothing would be done which would tend to check this improvement, but a healthy sentiment could be developed which would help all along the line.

In other cases where the work may not have developed to any great extent, it could be taken up and carried forward as rapidly as the circumstances would admit of.

Certain propositions could be disposed of in some cases and not taken up in other cases. Tuberculosis, for instance, might be dealt with in one town and an agitation started at another point. It might not be wise to undertake to do at one point which might at another be easy of accomplishment.

Each advance made would tend to influence the situation all over the state, and if managed in the way which has been outlined finally the improvement might be made to extend over the entire state.

It must be realized that the efforts of the health officer and sanitarian must be made with more or less good judgment, otherwise what might be easy of accomplishment would be delayed almost indefinitely.

Mr. Woods, of Maine: Mr. Chairman, could we discuss the whole subject?

The Chairman: Gentlemen, Mr. Hansen, of Utah, will open the discussion.

Mr. Hansen, of Utah: Gentlemen: I have been very much interested in the discussion of milk, and the subject, that has been here today "Theory vs. Practice." When entering upon the duties as Food Commissioner in the State of Utah, we found that milk was being handled in a very careless way. I was very anxious to do something to remedy these conditions, and I found that the government score cards were just the thing I was looking for, and I was so enthusiastic about it that we simply immediately sent out word that all dairies would be scored according to this card, and we did all the work we could for two years. As soon as the Legislature met, we had it enacted that all dairies would be scored according to this card, and those falling below fifty would be prosecuted. We issued Bulletin No. 6, and we received reports of all producers, and mailed out this bulletin throughout the entire State, and many of the dairymen became excited and worried over this. It was only our desire to hold this out as a standard for we realized that it would be impossible to make changes in six months or even years along those lines, and we had delegations come into our office and protest against this score card system, and we actually found that it was almost impossible to press this very hard. In fact, we cannot enforce this score card among the dairies throughout the State of Utah as it would be impossible for our farmers at the present time to comply with the requirements, such as building barns with a certain amount of space, etc., for each cow, and in talking with some of our experts along these lines, we have found it possible to produce first class milk, without these barns and special conditions as required by this card, yet it is a standard that we desire to hold out and continue to hold out to the people, and have them endeavor to work towards this standard. I enjoyed very much the remarks of Mr. Allen. He had some ideas and theories there that he intends to work out, yet he may find a great deal of difficulty in working them out, yet he is getting results, and by taking some of these theories and working on them, we are going to get results along those lines. The score card is the only system for milk supply for a city. It can be used better in the city, than out on the small dairy farm in the country where they are supplying milk for the cheese factories and condensed milk factories. We found that if we enforced it against these dairies, they would not milk their cows. They informed us that they would do this. We want to encourage the dairyman, and we find that by the use of this card, the dairy condition in our State, is at least a hundred per cent better—especially in the Cities. Our milk is all sold in bottles. We do not allow our milk to be sold in cans along the streets of the city. I have nothing further to say, but I will, no doubt, ask a few questions.

Mr. Brown, of Tennessee: Mr. Hansen, you spoke as putting the score on the card of 50 as being necessary to escape prosecution, and you mentioned that your experience was that an expensive equipment is not necessary to produce first class milk. Do you still require them to make a score of fifty?

Mr. Hansen: No sir, in the Country we do not require it, but in the cities we do. We found that they would not run the farms in the country.

Mr. Brown: My recollection is that forty is the requirement of perfect equipment on the government score card, and sixty for method.

Mr. Hansen: Yes sir; but we had a total of fifty to start with. We found it too much theory. We are using just our judgment as to prosecutions along those various lines.

Mr. Barney, Iowa: I might say that we have used the score card for sometime in Iowa, and we have a law there that if a man is producing milk, sold in the city, he shall take out a state license. Now, if his dairy does not score sixty or better, we do not give him a license. That has nothing to do with milk for creameries or that kind, but the milk in the City. We require a score of sixty by the government score card, and I have been thinking of raising that. The law provides that I may withhold a license from the producer, if there is any good reason for it. I thought that sixty was not a very high standard, and we have tried it, and they are getting their dairies to score sixty, and many are willing to try to do better now, and it worked out in good shape.

Mr. Hansen: I would like to ask you how you would score a dairy producing milk with an average of from four to five thousand bacteria. He believes in milking them in a small barn, with no light. The cows are cleaned thoroughly on the outside, and they are run into this little dark room, and milked—four or five at a time, and he claims that he can get better results than that. Therefore, we cannot always use this score card to advantage.

Mr. Barney: I tell you—I would use a little horse sense. I want to say to you that the milk that took the first prize in the Waterloo Dairy Show was produced in a barn, not wholly unlike the one you speak of. It did score pretty well, but it was produced by some boys that looked after their own affairs, and who did all the work themselves, and it took the blue ribbon at the show. Why? Because they knew their business, and didn't expose their milk, as it might be exposed.

Mr. Wallis, of Idaho: We have a law, that over one-half of the States of the Union have—a law, which prohibits the selling of milk from cows fed on brewery waste or distillery waste. I looked up the question and found that there was quite a lot of scientific data including one or two standard works on this subject, which hold that milk from cows which were fed with such food, injures the digestion of infants, and I prosecuted a dairyman in our State for feeding this to his cows, and then selling the milk, and he got an opinion from the Dean of the Agricultural College, stating that this was all foolishness, and that it did not so affect the milk. After him doing that, I did not proceed any further with my case. I thought I would bring it up before this convention. I would like to know what their view is, if they have made any investigation along these lines. Another point is this—we have in our State three or four large sugar factories. The beet pulp is kept and fed to cattle. I want to know if anyone has investigated along these lines.

Another question is in reference to the butter fat standard in milk. I have discussed the point of whether it is right to permit dairymen to take milk that has a very heavy butter fat content, and separate it to bring it to a legal standard, whether that is a violation of the law. We have not prosecuted anyone in our state because we have not had sufficient evidence, but we have our suspicions.

Those three points, I would like to have someone discuss.

I would like to say this about the score card. Our law deems the milk adulterated if the score falls below fifty. As you will see, we have scored up nearly two thousand dairies in our state, and in very few cases—possibly the percentage of the scores we have taken will not average more than ten per cent of places that are entitled to a score of fifty. I don't, however, think that I would be justified in prosecuting those 90 per cent of people. As I say, we would have to prosecute possibly ninety

per cent of the ones, whose places we have scored, and I believe that the Food Commissioners are the greatest law violators, because we pass up from us many offences. Our law says further that milk shall not be sold only in glass bottles. Then the law makes the milk adulterated if it has any sediment. If there is any dirty content at the bottom of the bottle, we simply prosecute him. We do not have to make a bacteriological examination. However, we are looking well after our dairy interests in Idaho. I do not want to prosecute a man for selling milk from his cows if he feeds them brewery waste, if the milk is wholesome. I am not a dairyman, I will admit, and maybe some of those that are and are present might say something along these lines.

Mr. Helme, Michigan: I think I can give a little light on the brewery waste question. We have a law in Michigan that says we cannot feed brewery waste to the cows. We have a law against feeding brewery malt, and commissioner after commissioner has tried to enforce that law, but every time they have brought prosecutions, they could get people to swear that that was a wholesome food, and so they have abandoned prosecution. As a dairyman myself, I would say that I have fed thousands upon thousands that brewery malt, and I have had five thousand bushels a year of brewery malt, and there is no better or wholesome food, providing it is fresh, and in good condition. It is simply boiled up barley. But that stuff decays very quickly. On a day like today, in twenty-four hours, after that is out of the brewery, that thing will stink. Then it is not proper food. You do not want to feed it then. You can put it up and preserve it. It makes good food, and so far as making the milk unwholesome—it is nonsense. I think that there is nothing to that. In regard to beet sugar—we have a beet sugar factory in our country, and for several years, the cow men fed the pulp from these factories to their cows. But now, the factories have found out that they can dry that stuff and sell it for fifteen dollars, and you can't get it any more from them. About what I have said about feeding my cows with the brewery malt, we were right close to the brewery and could get it fresh.

Mr. Rawl: Just a word in regard to that brewery grain. I have no doubt, but that fresh grain, such as the Commissioner from Michigan refers to is nutritious and wholesome food, but I have never seen a community in which it was generally used; that the conditions accompanying its use seemed at all permissible. The fact is that but few of the dairies are so located as this dairy he speaks of where they could get this fresh, sweet grain, and consequently they had to hold it, to transport it from the breweries, or where it is made, to the dairies. The average dairyman will haul it just as seldom as he has to do it. There is one evil. Another is that frequently where you have wood construction, and where there is considerable water, there will be leaks in the manger—and aside from this—it is fed carelessly, and has a bad effect on them. While this is a sweet palatable food, I do not believe you can control it. I am opposed to it because I have never seen it sufficiently controlled.

Mr. Barney, Iowa: On the subject of using beet pulp. About four or five weeks ago we had a complaint in the department from a creamery to the effect that their butter was selling three or four cents under the market, by reason of some very peculiar flavor it had, and we made an investigation, and found that this creamery was taking the milk from cows that were getting fed from a sugar beet factory. This beet pulp—they had been using this product all winter but had had no trouble up to the time that warm weather set in, and we went to the pit they were taking the pulp out of, and found that the pulp was spoiling, and that it was absolutely unfit for food. We simply said to him, that if he would continue to buy milk from men that used that sort of stuff, he would expect to get a low price for his butter. I do not understand why we didn't have that trouble last year, but we didn't. I cannot explain it, but I am sure that it came from the fact that the pulp was spoiled, and possibly by reason of the warm weather, and was unfit for food, and as soon as they quit using it, they had good results from the creamery.



B. H. RAWL,
Chief Dairy Division, United States Department of Agriculture.

Mr. Wallis: That could not have been the case in our state, because our factories commence at the close of the harvest in October, and some run until January, and it is in the months from January until May that this pulp is fed to the cows. We never keep it over the summer months. We have never had any complaint as to butter, but it is the milk, and it is not in the smell, but the complaint that it affected the digestion.

Mr. Brown, of Tennessee: Mr. Rawl, are there any bacteria left in the sweet brewer's grain that would have a bad effect upon the animal?

Mr. Rawl: That, I think, is rather hard to answer. We have not made a specific study of that phase of the question, but it would seem, that where animals thrive on it, as is sometimes the case, when properly fed, and fresh and and good, that there will be no harmful effect produced; while on the other hand, when decomposition sets in you are liable to have, I should imagine, almost anything.

Mr. Hansen: In reference to the feeding of beet pulp—our law prohibits its use, unless it was dry, and we found it absolutely impossible to prosecute successfully, and we made some investigation and they informed us at Washington, that it was a very wholesome and good food for cows. I am convinced personally that if it is fed carefully and rationally, that it is a good food. If they can use it successfully we want to encourage it in our State, and if it is going to be injurious, we want to have its use stopped.

Mr. Abbott: I wanted to ask Dr. Rawl a question. Do you know of any experiments of the wholesomeness of milk fed on those grains—that is the milk of cows, fed on this grain?

Mr. Rawl: No sir, I do not.

Mr. Abbott: It seemed to me that this question could be brought down to the general theory of feeding decomposed food stuff.

Mr. Rawl: This would not be considered decomposed, if it is fresh.

Mr. Abbott: No sir; but if it is not fresh. That classes it then with the general proposition, as decomposed food stuff, and ought to be condemned. I am very sorry that I could not discuss Mr. Allen's paper, while he was here, for I would like to have had some information on it, and I would hardly like to discuss that paper in his absence. I do not know whether any bacteriologists are present, or not, and it was mainly a bacteriological paper. I was surprised to find it in this section, rather than in the Scientists' Section, but Mr. Allen made one statement there. He had one plan that would be all right, if he can get it. That is, if he can get a trained practical bacteriologist for his food inspector. What is correct and proper? It is proper that the cows should be examined by a competent veterinary surgeon, but I must depart from Mr. Allen, on the general proposition that an inspector ought, of necessity, be a bacteriologist.

I don't agree with that at all. If he has two or three different sorts of condensors, and he wants to know the efficiency of these condensors, his bacteriologist can make a study of milk, where these condensors have been used, and if there is any question in his mind as to which is more efficient, he can answer that for him. If he wants to know what effect certain sorts of refrigerating will have on milk, he can determine that from his bacteriologist, and he has then established a general principle, and these principles can be learned by his inspector. If he wants to know whether this or that sort of barn is more efficient in the production of milk, he can take time and go there himself, and study his own mind, with reference to the final result upon milk, as it comes from this and that barn, and he established in his mind a certain definite standard of milkhouse. But I have never yet known anybody that has attempted to use bacteriological methods in routine methods of milk supply. It is not possible and not practicable, and costs a great deal of money. One very good remark that Mr. Barney used was that, a man should "use some good old horse sense in his methods." I do not think that we should discourage the departments of the country by saying that they are not able to do the work unless they are bacteriologists. There were some other things that I would have liked to discuss. The paper I saw there gave a number of figures and scores. I want to say to you without any further comment, that just that information alone, does not mean a thing in the world to a bacteriologist. Without a knowledge of all the modifying circumstances, no man is able to judge from that the quality of milk it represents, and I do not think that it is a fair proposition to hold up to a people of the State, because the people are going to use that as their standard, and it is wrong in principle and fundamentally. I can fight as hard as anybody, but whenever I do fight, I expect to have a good foundation to stand on. I do not like those sort of methods. So far as the general public is concerned, they are misled; so I would respectfully say that I do not think that it is absolutely necessary for an inspector to be a bacteriologist.

Mr. Woods, of Maine: It seems to me that Mr. Abbott misunderstood what Mr. Abbott said. I think if he was here, he would say that the general run of his inspectors knew something about bacteriology.

Mr. Abbott: I asked him the direct question.

Mr. Holton, of Vermont: In 1857, the milk of New York City was obtained from cows that were kept at the breweries. Dr. Percy who was professor in the New York College took the matter up and he found the cows were suffering from bad diseases, and he attributed it to this fact. Anybody that wants this article will find a full report on this matter in the New York Medical Report, of 1858.

Mr. Wallis: I went into the library on this very question, and I have quite a brief made up of investigations, and all of them were against it. German, English and American doctors.

Mr. Saunders, of Virginia: Is it not true that the dairies in those cases are in very bad condition? That condition could be corrected, and the food in all likelihood would be better.

Mr. Wallis: Yes sir; but it is just as Mr. Rawl said, it is dangerous.

Mr. Woods, of Maine: Gentlemen: The gentleman there gets up and states that that is the wrong attitude, in speaking of what Mr. Allen is doing. I think that the way in which we should treat that work they are doing in Kentucky, should be with eminent respect, until we find out what it really is. It is very important to be careful as to what we publish. It is the bacteriologists that must tell us whether the milk is fit or unfit for food. So it seems to me that as an association, we certainly want to receive these new ideas with an open mind, and not condemn a man because he is doing something new, but simply say—wait and see, if it will work out. I think that this is a very marked case that they have in the city of Lexington, and if it is possible to gain as much as they have in the quality of the milk, then we should wait and see how the thing will work out before condemning it.

Mr. Abbott: That is a very vile criticism of me from my friend from Maine, for the remarks I made on the paper by Mr. Allen. I understand that Mr. Allen is not a bacteriologist, but a lawyer—is that so?

Mr. Woods: I do not know sir. All I know is that he is Food Commissioner for the State of Kentucky.

Mr. Abbott: Well, I am asking for information, and not for rudeness. I hate to make any further remarks on that paper on account of Mr. Allen's absence, because there is certainly no animosity in my mind towards our friend, Mr. Allen. I was giving you my opinion as a bacteriologist, and everybody in this country is at liberty to take my printed opinion and put it before a bacteriologist, and ask him his opinion on that subject.

Mr. Saunders, of Virginia: I would ask you a question. I am not a bacteriologist either, but I have given the matter a great deal of thought for a good many years. What occurred to me is the fact that Mr. Allen stated that his milk was being offered for sale at the same time. I would object to taking and passing upon milk just from its bacteriological count, simply because it might be almost anything. A count of four or five thousand does not mean very much but the fact that this milk was all being offered at the same time for sale to the same people—how about that?

Mr. Abbott: I wanted to know how long it had been from the time the milk had been milked until it was taken by the inspector. I want to know under what conditions it was kept during that time. I wanted to know who took the samples of the milk—whether a bacteriologist, or a simple ordinary man. I wanted to know whether there were any bacilli cocci. I take it that most of you are not bacteriologists. I could go on at some length, and give you a good deal of information in regard to the bacteriology of milk. What I was objecting to was not Mr. Allen's bacteriological examination of the milk, but what I did want to say, and do say it now, and mean it—that it is not absolutely necessary, and it is not at all necessary for an inspector to be bacteriologist to make a good milk inspector, or sanitary inspector. Of course, it is desirable, and we would like to have it, but it does not mean that it is necessary. So you need not be discouraged, because you are not a bacteriologist. I am also objecting this report over here in this newspaper, holding these men up before the public on a numerical count of the bacteria in their milk, without any modifying circumstances, and I repeat that it is wrong.

Mr. Brown, of Tennessee: We have got two methods of inspecting dairies—one, our score card, and the other is the bacteriological count. I think that a theoretical perfection of the control could be maintained by a judicious combination of those two matters, giving each the proper weight. It is quite certain that they are supplementary, and of the two, so far as my opinion goes, and the observation I have made in my home state, the bacteriological count is eminently successful in improving the quality of the milk supply. Of course, I don't know anything about the conditions in his state. We do the best we can, and we don't any of us pretend to be perfect. It seems to me that we must not reject the bacteria count in this way when properly made, and that it ought to be made free use of, and that if an actual injustice is done, that right will come in in the end, and that that man will get his dues. We must not reject a good thing when we come to it. Mr. Wallis raised a nice point. That is, the question of modifying a high milk of high standard in such a way to make a certain amount of cream from it, and still come within the law. I am going to make a suggestion—and that is, that we have certain standards here, which the man must come up to. If his milk is wholesome, the mere fact that a certain amount of fat is extracted from it, and if he still furnishes a milk that is up to standard, why then, let him go ahead.

Mr. Rawl: In regard to this bacteriological count—for the last twelve months, we have had a bacteriological count made of each milking—milk that was produced at night and in the morning, and hauled into the city a distance of sixteen miles, and sampled at the laboratory. The score card inspection and the bacteriological inspection constitute one system. The score card gives you the facilities to work with, and the bacteriological inspection gives you a test of the final results. I have sat in my office this year and every day, reports of these bacteriological counts come to me and we will run for five or six weeks under ten thousand, and all at once, I will get a count of sixty thousand, and I know right then that something is wrong, and I send a notice back to them that something is wrong, and I think that, as a true index of something wrong on the farm, there is nothing the equal of the bacteriological count.

The Chairman: Gentlemen, we will now hear the paper prepared by Mr. Joel G. Winkjer, of Minnesota, on the subject: "The working of the Minnesota Anti-Discrimination Law."

The Working of the Minnesota Anti-Discrimination Law



By Joel G. Winkjer, Dairy and Food Commissioner, Minnesota



THE Minnesota antidiscrimination law has reference only to the discrimination in prices paid for "milk, cream or butterfat for the purpose of manufacture," and such discrimination is prohibited only when done with the intention of "creating a monopoly or destroying the business of a competitor."

The evil of discriminating in prices has existed for a long time, and it was not without due provocation that Minnesota enacted a law in this line. We find engaged in the business of buying butterfat for the purpose of manufacture two distinct systems; one of these buys what is delivered directly to a station from distances not much exceeding twelve miles, the other has its butterfat delivered to stations, like the first, but instead of manufacturing the butterfat into the finished product at this station, it is shipped long distances to a central churning plant to be manufactured, and a great number of stations are maintained to supply the central manufacturing plant.

The local creamery that buys and manufactures at one station has no chance to discriminate in prices, while the much larger centralizer has excellent opportunities to pay many different prices at its great number of stations, a condition favoring monopolistic inclinations. Whenever a local manufacturing plant is located at a station where a centralizer buys, the latter can give this local plant such unfair competition that it is impossible for the local plant to continue to exist. In the raising of these prices, the centralizers are stronger with capital at their command and also by reason of their many different places to buy from, they can call into play financial assistance from the very men who are interested in a local plant. This can be plainly shown by an illustration: Suppose a local plant buys 100,000 pounds of butterfat within a certain time; if at this point the centralizer has given competition by purchasing another 100,000 pounds at the same time, and has raised the price 1c per pound over the actual value of butterfat, they have each lost on this deal $1,000. But the centralizer has at the same time ten other stations where they are in absolute control, and at these stations their receipts of butterfat aggregated 500,000 pounds.

It can readily be seen how a small reduction of ¼c per pound at each of these ten other places would more than pay the loss sustained by the centralizer at the one point where the price was raised. It is impossible for a local plant to meet this kind of competition. The advantage of money might be given to the local plant and still the centralizer, with its numerous stations, could crush it out. The question of real merit which one system may have over another does not become a factor in the building up of the industry when such unfair discrimination is permitted.

The Minnesota legislature of 1909 sought to remedy the evil influence such practice might have on the dairy industry and the state as a whole when it passed the anti-discrimination law, which reads in part as follows:

"Any person, firm, co-partnership or corporation engaged in the business of buying milk, cream or butterfat for the purpose of manufacture who shall, with the intention of creating a monopoly or destroying the business of a competitor, discriminate between different sections, localities, communities or cities of this state by purchasing such commodity at a higher price or rate in one locality than is paid for the same commodity by said person, firm, co-partnership or corporation in another locality after making due allowance for the difference, if any, in the actual cost of transportation from the locality of purchase to the locality of manufacture shall be deemed guilty of unfair discrimination."

In the trial case on this law, on a complaint brought by the State Dairy and Food Commission (counsel for the state, Lyndon S. Smith, attorney-general; Alex. Janes, assistant, and Wm. Lamson, county attorney of Pine county) against the Bridgeman & Russell Company, of Duluth, it was by mutual agreement certified up to the State Supreme Court for a test as to its constitutionality. The situation can be readily comprehended from the following quotation from the state's brief:

"Counsel for the appellant contends that chapter 468 of the laws of Minnesota for 1909 is unconstitutional, for the reason that the same is in violation of sections 33 and 34 of Article 4 of the Constitution of the State of Minnesota, which sections of the constitution prohibit special legislation and that said law is likewise unconstitutional for the reason that the same is in conflict with section 1 of the 14th amendment to the Constitution of the United States. Counsel's specific argument, and only argument, is that the classification is unreasonable in that said chapter 468 only applies to such persons or corporations as are engaged in the business of buying milk, cream or butterfat for the purpose of manufacture. Counsel does not contend that the evil sought to be remedied by the statute, if one exists, is not a proper subject of legislation, but confine their argument solely to the proposition that the classification created by the statute, namely: Those who buy milk, cream or butterfat for the purpose of manufacture, is an unreasonable classification—there being no reason not to extend the provisions of the statute to those who might buy the same articles for consumption or resale. It is likewise argued that the Statute "should be extended to other farm products, and not limited to those enumerated. There is, then, but one question for this Court to consider on the position taken by counsel in their brief, namely: Is the classification created by the Legislature so arbitrary and unreasonable as to justify this court in declaring the Act of the Legislature unconstitutional?"

The state contended that there existed conditions which justified the classification of the Legislature. In this contention the reason is given that in one case the cream was purchased for manufacture, while in the other it was for direct sale to the consumer and that, on account of this and the nature of the business, monopoly was possible in the first case, while in the other it was impossible. In reference to this, several quotations from other court cases bearing directly on the question, were used by the state, the most important parts of which are as follows: State ex rel Young v. Standard Oil Co., 111 Minn. 85:

"It cannot be doubted that, as population increases, and new and improved methods of production and distribution are applied, legislation of that character must appear with greater frequency for the protection of the general public against the inclination of the individual to transact his affairs as in his judgment is best calculated to further his own interests, irrespective of the effect his conduct may have upon the public welfare. General laws to meet each condition as it arises would be necessarily so broad as to be open to many objections, and would often result in great hardship to individuals who were entirely innocent of any harmful act."

Supreme Court, State of Iowa, (State v. Fairmont Creamery Co., 133 N. W. 897.)

"The temporary maintenance of artificial prices for the sole purpose of destroying a weaker competitor and creating a monopoly is one of the modern evil inventions."

"We are impressed, therefore, that the classification adopted is one which arises quite naturally and that it rests upon a substantial and practicable distinction."

State ex rel v. Brown. (97 Minn. 402.)

"Classification is primarily a matter for the Legislature, and, like other matters of a legislative character, should be controlled by the courts only when it is very apparent that the Legislature has abused its discretion in this respect and violated some provision of the Constitution."

"It is only when the classification is so manifestly arbitrary as to evince a legislative purpose of evading the provisions of the constitution that the courts may and must declare the classification unconstitutional."

"If any such distinction exists, the judgment of the lawmaking department of the state as to the necessity for special regulations is final."

These quotations give a good understanding of the questions involved and the best way to get the substance of the decision handed down by the Court is to quote. In this quotation is included part of the defendant's argument used by the Court in its decision. It will serve to show the position they took.

The quotations are as follows: From the decision handed down by the Minnesota Supreme Court on Feb. 16, 1912, (Page 189).

"The reasons urged in support of the claim that this classification is arbitrary are concisely stated by counsel for the defendant:

"There is nothing peculiar about the common articles milk, cream and butterfat, either in the things themselves or in the manner in which they are put upon the market, to justify a classification for them; nor is there any reason for a sub-division of such an arbitrary selection into those who buy and those who sell, and, still further, there is not the slightest excuse for a sub-division supporting those who buy for a certain purpose, in itself lawful, from those who buy for another purpose, equally as lawful. If this be true, then the classification is an arbitrary one and the act unconstitutional. There is, however, a strong presumption that there were reasons, arising from the volume and method of the business of purchasing such commodities for manufacture, its extent and the motives and facilities offered for creating a monopoly, which justified the Legislature in making the classification it did."

"Our consideration of the subject has led us to the conclusion that the business of buying milk, cream and butter-fat for the purpose of manufacture, when carried on by parties controlling ample capital, with large central plants and local purchasing points extending over wide territory, affords special facilities and motives for the creation of monopolies by the temporary maintenance of artificial prices at competitive local points and, further, that there is in this respect a substantial distinction between the purchase of milk, cream and butterfat for manufacture and their purchase for re-sale or consumption. The business of buying such commodities for re-sale or consumption is not one easily susceptible to monopolistic control. This distinction is clearly drawn in the opinion of the Court, in the case of State (Iowa) v. Fairmont Creamery Co.

"The Court in the case cited, said: 'A multitude of people buy milk and cream for immediate consumption. Comparatively few buy milk and cream for the purpose of manufacture. To the multitude who buy for immediate consumption a monopoly would be quite impossible and its attempt quite absurd. Those who buy milk and cream for the purpose of manufacture sustain a distinctly different relation to the trade and to the community in which they operate.'"

"We are impressed, therefore, that the classification adopted is one which arises quite naturally and that it rests upon a substantial and practical distinction. The payment relatively of a higher price for milk, cream and butterfat in one locality than in another is not forbidden by our statute; for it is only when such discrimination is made with the intention of creating a monopoly or destroying the business of a competitor that the act is forbidden."

These quotations embrace the most important factors in the case, and the decision of the court which upheld the constitutionality of the act.

There has been a marked improvement in conditions in the state, although the evil has not entirely abated. Two other cases have been tried and won, showing that the law is practical. In the three cases tried the price paid for butterfat by the centralizers has been higher than that paid by the local plant, whose business was affected. There can be discrimination in prices on the part of the centralizers where the highest price paid does not exceed, but is equal to that of the local plant. This kind of discrimination has its evil qualities, some of which are equal to the discrimination in which the price of the local plant is exceeded. The local plant, however, meets the centralizer on the basis of an equal price, and it is other qualities than the prices each pay that are tested. There is no doubt but that a discrimination of this kind could be stopped, if proved that the discrimination was made to create a monopoly or to destroy the business of a competitor. A case will undoubtedly be tried out on this point when discrimination of this nature is practiced.



C. H. BILLINGSLEY,
Food, Drug and Dairy Clerk of Alabama.

Mr. Woods, of Maine: In any of those cases, did the defendants claim lack of intention?

Mr. Winkjer: No sir; I do not think that they have.

Mr. Woods: They admitted the intention practically?

Mr. Winkjer: I think the situation was such that they could not disprove our contentions.

Mr. Woods: You endeavored to prove intention?

Mr. Winkjer: Yes sir; that is a part of the getting of the evidence. In getting this evidence, it is quite difficult, and we have two inspectors to go out and get the cream of the farm, and divide in into two lots, and mixes it thoroughly at first, and each of the inspectors takes their part, and goes to the place where the discrimination is doing the harm, and to another place where they are putting in lower prices. They test these two lots for food, and judge it as to the quality of the cream, and they are sure that the samples are as nearly the same as their judgment—cannot distinguish between them anyway, and then they receive the check at each of the places, and bring them in as evidence in the case. That is, in short, the proceeding of getting the evidence.

Mr. Wallis: Who determines the price, on which you base whether it is an unjust price to pay?

Mr. Winkjer: The prices are fixed by the centralizers, and the different stations surrounding this. The price in this particular place is the price that the local plant is paying, and the centralizer is paying the higher price. There is some effort there to establish the market value of the butter fat on that particular day, that the prices are paid; so that their own prices and the number of cases surrounding that territory, lower than at that particular place, to a certain extent, determine the prices.

Mr. Wallis: We have just adopted this law. This condition arose. The Portland market sent buyers into our State, and paid five or six cents per pound more for the butter fat than any of our people in Idaho were paying, and then in order to keep the cream in the State, they went to work and raised the price of butter. The two or three independent creameries felt that there was no cause for raising the butter, and did not do so. In forty-eight hours, the price that had been offered, came down below what the independent creameries were paying. Of course, I could understand if one concern offered two prices in the State, that it would have the appearance—it would be presumptive evidence, at least, that they were doing it to crush out that little creamery, but when the creamery pays the same price in both parts of that territory—they would not come under the law.

Mr. Woods: Well, you see we do not have the intent in our law. It is a matter of fact.

Mr. Woods: These people gave the same price all over the State?

Mr. Wallis: Yes sir; the outside concerns did—yes sir.

Mr. Woods: But they made their prices uniform all over the State?

Mr. Wallis: Well, it did not affect the southern part of our state.

Mr. Woods: And they made different prices in the southern part?

Mr. Wallis: Well, they did not raise the prices in the southern part of the state. What I was wondering at was, who was to set up the prices of butter fat to determine whether prosecution was right.

The Chairman: Mr. Foust made the suggestion that we suggest subjects for next year's program, and I was wondering whether the matter of the feeding of silage to cows, whose milk should be used for infant food, wouldn't be one.

Mr. Woods: The values of fixing standards—we have the values of fixed standards with milk and to some extent in butter. It might be that we can get a pretty interesting series of discussions along that line.

Mr. Jaffa, California: The feeding of beet pulp—our experience in California has been favorable to beet pulp feeding, when fed carefully. There was no trouble whatever with the health of the cows, or with the milk. The same conditions obtained at other places where this beet pulp was fed, and it is even used to fatten steers. Of course, if it becomes decomposed, then it is bad. We have seven or eight factories out there, and this beet pulp was used more extensively, but a few years ago they started drying the pulp and selling it for twenty-five dollars a ton, and so the dairymen cannot get it any more.

Mr. Brown, Tennessee: Does Mr. Woods' suggestion take in my suggestion about the skimming of milk?

The Chairman: I think that would come under our adulteration law.

Mr. Billingsley, Alabama: Gentlemen, on behalf of the Chamber of Commerce, I wish to announce that we will take the Government Revenue Cutter "Winona," in place of our own boats here in the harbor, and we have not known, until just the last few hours that the ladies will be permitted to go. Uncle Sam has given his permission to let the ladies go on his boat on this occasion. This is the trip to the oyster bed, I am talking of.

ADJOURNMENT.

Section B—Association Official Food and Drug Chemists

AFTERNOON SESSION—TUESDAY, JUNE 17

Address of President Wm. H. Harrison

Section B of The Association Official Food and Drug Chemists, met at 2 P. M., June 17th in the Roof Garden of the Battle House, President Wm. Frear, presiding.

Meeting was called to order and Dr. J. R. Chittick, vice president was called to take the chair.

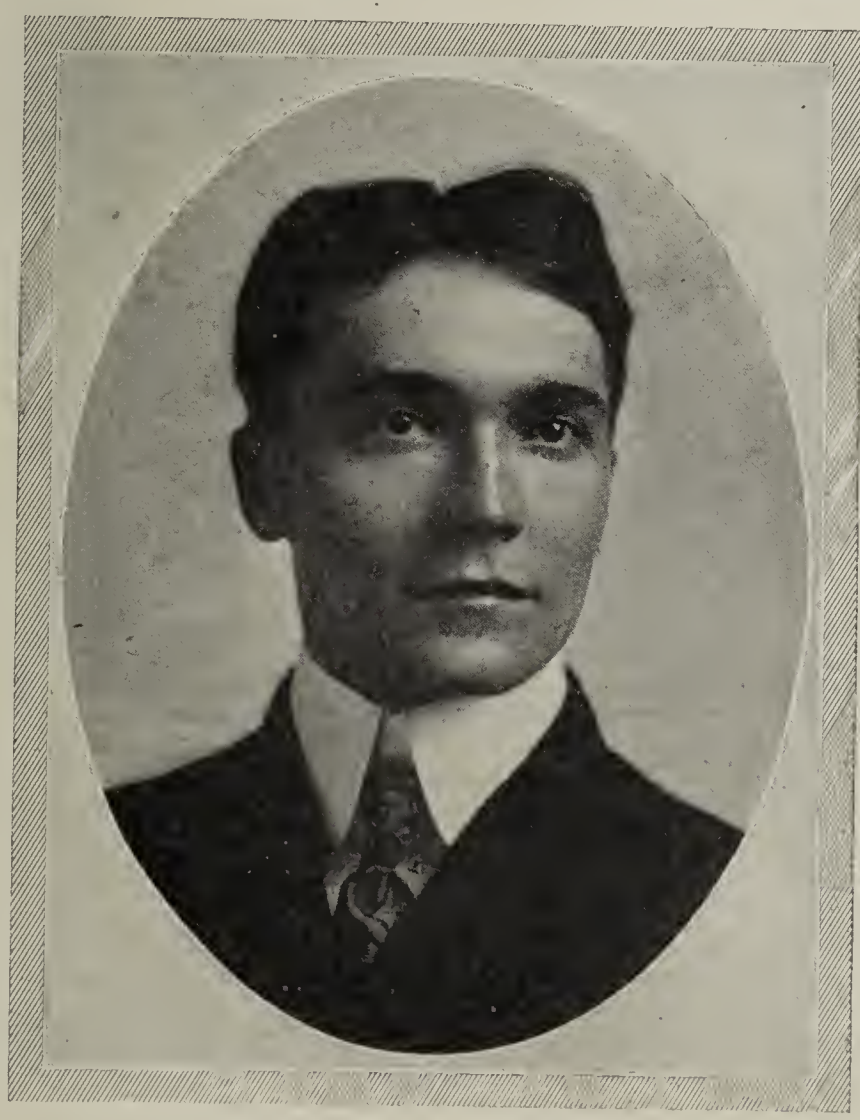
President Dr. Wm. Frear then read his address, which was well received, as his remarks were to the point. The address follows:

GENTLEMEN of the Section of Analysts: In opening this year's meetings of Section B, I desire to fulfill the presidential obligation of making an initial address bearing upon some general aspect of our work, and, at the same time, not to delay too long your consideration of the interesting discussion of detailed subjects which the program provides.

By the constitution of the Association, Section B is made to comprise all who are officially charged with the examination of foods and drugs to ascertain their conformity to legal requirements. It matters not what the method of examination may be, chemical, physical, histological, myerlogical, bacteriological, or pharmacological, the discussion of the methods belongs to our program, and the obligations of the service press uniformly upon us all.

These obligations should ever remain clear before our eyes. Every move we make influences, on the one hand, the health and welfare of the public; on the other, the reputation of the dealer and manufacturer. We can not, therefore, be too courageous and persistent that fraud may be repressed and the right prevail, nor too careful that no man be brought unjustly to the bar of our courts or of public opinion. The values affected by our actions are measured in denominations far larger than dollars, and the safeguards upon our work should be commensurately increased.

There is one point, only, upon which I would dwell at this time, namely, the importance of constantly applying to our work the checks of qualitative analysis.



J. R. CHITTICK,
State Chemist, Iowa.

It has been the criticism of thoughtful analysts that in all branches of analytical chemistry the tendency to magnify quantitative methods and to belittle those of qualitative chemistry, with the result of developing, in too large measure, the reign of the rule of thumb, to emphasize the maintenance of identity of procedure and, at the same time, to forget the full significance of the details so carefully performed to overlook the effects that variations in the body analyzed, may have upon the accuracy of results. The rule of thumb is the key to the performance in time of a large number of repetitions, but it is, most assuredly, not the stepping-stone to masterly accuracy of work under necessarily variable conditions and upon a large variety of subject-matters. Undoubtedly, the leaders of thought in analytical chemistry are right when they insist that the qualitative branch shall go hand in hand with the quantitative branch, and that educators should mold their pedagogic methods to that end.

To us, however, the subject is of immediate, practical importance. Without the qualitative confirmation, our quantitative deductions are incomplete proof, and forensic statements are open to attack. Furthermore, the subject-matters with which we must deal are so various and numerous, that in the case of but few of them can we have the certainties of full familiarity, the easy identification of their specific nature by the almost unconscious grasp of distinguishing detail that comes from everyday acquaintance under the widest variety of conditions.

The self-same facts that give rise to the special need for constant recourse to qualitative methods in our work, constitute our difficulties in so doing. For so many of our tests we must depend upon sensations of color, aroma, flavor or the minutiae of structure. For numerous color percepts we have no precise names; our language descriptive of the immensely various percepts of smell and taste comprises only similitudes of the dominant quality, without qualifiers to denote the shades or tones of variation; and rarely gifted is the descriptive writer who can make stand forth in the mind of the reader, the distinctive structure of cell-wall, or tissue, so that, upon himself beholding it under the microscope, the reader can instantly identify it among others somewhat resembling it.

Furthermore, in most memories the precise quality of a tint, or odor, flavor, or a complex form, soon loses its sharpness; so that it tends to become confused with others of like general character. As a result, even he who as a student was made to study things at the same time he studied their written description, loses ere long his clear recollection of their qualities.

Without further elaboration of these suggestions, which each of you can readily fill out from his own experience, I desire to urge the importance of having as an essential part of the equipment of every food, drug, bacteriological and histological laboratory connected with our service, the fullest possible collection of all the raw and finished materials with which we have to deal, in addition to the best works descriptive of their qualities; and that, having them, we take pains constantly to refresh our memories of their qualities by constant comparisons between knowns and unknowns; and that, in the preparation of our evidence for the courts, we ever remember to insert and keep strong its qualitative links, as well as its quantitative parts.

In making this suggestion, I am not unaware that all men of experience use this method to some extent. I feel equally sure that, on the witness stand, many of us have had reason to wish that we had used it farther; and others have had difficulty in bringing to full view of the need for comparative sets of materials those who control the expenditures of their laboratories. This brief discussion of the topic has been presented with the hope that it may have value in these relations.

Dr. Bryan, of Illinois, here read the paper of Mr. Wm. H. Harrison in Mr. Harrison's absence.

The Analysis of a Sample of Sugar Vinegar Made from Cane Sugar



By Wm. H. Harrison—Illinois State Food Commission



THE United States Department of Agriculture in Food Inspection Decision No. 140, and other authorities, define sugar vinegar as the product made from "solutions of sugar, syrup, molasses or refiner's syrup."

It is evident that vinegar made from such widely different raw materials will vary greatly in chemical composition and the analysis of a sample of vinegar made from one of these raw materials can not be compared with that made from another, except in glycerin content.

It is evident that the constants for each kind of vinegar must be determined separately, and published anlyses of "sugar" vinegars should be accompanied by the history of the sample before they are of any real value.

The vinegars which are discussed in this paper were made under the personal control of the writer with the cooperation of a well known manufacturer of sugar vinegar. The vinegar was manufactured according to the regular factory practice except that precautions were taken to lock and seal each tank or container when the writer was absent. This precaution was thought necessary to prevent contamination by persons not interested in the experiment.

Samples were taken from time to time throughout the entire course of manufacture as follows: A sample of the sugar, sample of the water used, sample of the sugar in solution, sample of the yeast, sample of sugar solution after sowing with yeast, sample of the mash after fermentation and so on to the time the vinegar was ready for the barrels.

The analysis of these samples was carried out according to usual methods and started within twenty-four hours of the time sample was taken. The great bulk of the results though very interesting to the vinegar specialist has no particular general value, and I will not burden you with it at this time.

The finished product which is a sample of sugar vinegar made solely from raw cane sugar and containing no added material other than the yeast and water which is necessary for its manufacture, has the following chemical composition:

Acid	5.03%
Polarization direct, Ventke...	+2.00
Polarization invert, Ventke...	+1.90
Color removed by Fuller's earth	70%
Total solids	2.25
Total ash	0.345
Soluble ash	0.204
Insoluble ash	0.141
Alkalinity of soluable ash, c.c. No. 10	4.0
Soluble P205	none
Insoluble P205	9.3 mgm.
Nonsugar solids	1.92
Ash in nonsugar solids	17.9%
Sugars	0.230
Glycerin	0.46%

Lead subacetate ppt. light buff, curdy, heavy and does not settle.
The specific gravity was 1.015

While the above analysis is of but one particular sample, I believe it may be taken as typical for the reason that the figures are consistent with those obtained by the mathematical calculations of what would be expected in a vinegar made from raw sugar of the usual grade, and also consistent with the analyses of vinegar liquors made by the writer. I have failed as yet to find any sample of pure sugar vinegar which differed greatly in the main from it. I know of no published analysis of cane sugar vinegar.

For those who may be interested in the analysis of the sugar vinegar liquor, I embody it at this point. It will be seen from the analysis of sample that only such composition changes take place in the generator as would be expected. This sample is the liquor which produced the sugar vinegar above.

Acid	1.2
Total solids	3.97
Soluble ash	0.205
Total ash	0.392
Alkalinity of soluble ash	4.4 cc.
Alkalinity of insoluble ash	39.2 cc.
NaCl% of soluble ash	35.7
Sugars	0.235
Ash in nonsugar solids	10.4%
Nonsugar solids	3.74
Soluble P205	none
Insoluble P205	9.3
Glycerin	0.472%

From the work so far completed, the following limits have been found:

Total solids	1. - 3.97
Total ash	0.3- 0.392
Alkalinity of ash	3.2- 4.4
Soluble P205	none
Insoluble P205	8. - 9.6
Nonsugar solids	1.5- 3.7
Ash in nonsugar solids	10.4-19.3
Glycerin	0.367%-0.48%

Sodium chloride, 34-48% of soluble ash
Soluble ash seems to be uniformly about 0.2 on a 50 grain vinegar.

All of the above figures are based on a 50 grain basis. Statements have been made concerning the polarization of sugar vinegar. A majority give the impression that sugar vinegar should polarize to the left after inversion. My experience has been to the contrary. My samples always polarized to the right after inversion and were only slightly less than the direct polarization. I have found, however, samples of compound vinegar which did polarize to the left after inversion.

It is the opinion of the writer that the most valuable determinations on sugar vinegar or compound sugar vinegars, are total ash, soluable ash, soluble P205, insoluble P205, sodium chloride and glycerin, the percentage of sodium chloride in soluble ash and soluble P205 being the most important determination in differentiating sugar vinegar from some samples of corn sugar vinegar.

The absence of soluble P205 and low ratio of soluble to insoluble ash differentiates sugar vinegar from all fruit vinegars.

The paper was then open for discussion.

Mr. Doolittle: I would like to ask Dr. Bryan, if he has information as to the time the vinegar stood after running through the generator, before the samples were taken.

Mr. Bryan: These samples, as I re-

member were taken immediately after coming out of the generator, within a day or two, at least. Our chemists were right there on the ground, whenever anything passed in or out, and the samples must have been taken when it came out.

Mr. Tolman: What sort of a generator did you use?

Dr. Bryan: It was a revolving generator.

Mr. Tolman: I have no doubt that the results in an upright generator would be very much different from those with a different sort of generator. I wanted it to go on record what kind of a generator was used because you will have a good deal of difference between the results under different conditions. I think you will find that the non-sugar solids are a great deal lower in that vinegar made—I think it takes two or three weeks, I understand two or three weeks with the syrups—and that there is a good deal more of the gummy matter and there will be considerable difference as regards the amounts of sugars.

Mr. Tolman: There is one thing I noticed in the sugar constants of sugar vinegar and that is the determination of the total color in comparison with the amount of solids. I think you will find that the difference between the color of the solids and the color of the black strap, will be as you stated before. There is a very important relation there and strong indications and proof of the dilution of the product.

Mr. Bryan: The determination of NaCl as compared with the soluble ash is a very important determination in distinguishing this vinegar from corn sugar vinegar. The NaCl in the case of corn sugar vinegar runs as high as 75%. In other words, it is twice as high as it is in the case of raw sugar vinegar.

Dr. Elton Fulmer of Washington, was absent and as his paper was not sent in, this number of the program was omitted.

Here followed a demonstration by J. R. Chittick of Iowa, on "A rapid Method for Routine Specific Gravity Determination."

A Rapid Method for Routine Specific Gravity Determination



By J. R. Chittick
Iowa State Chemist



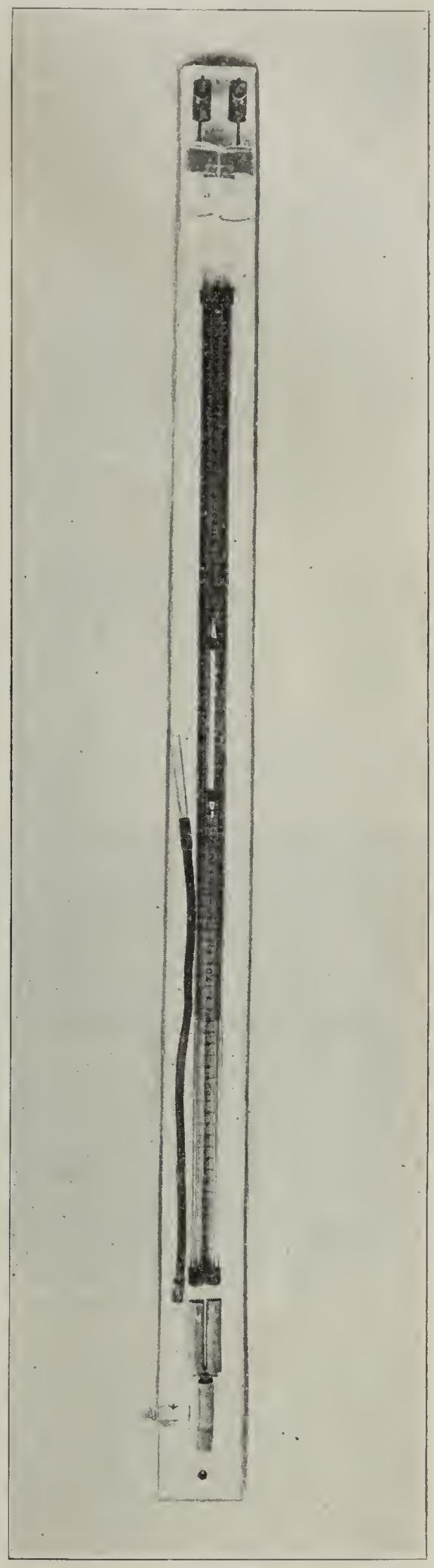
In laboratories where examinations are made to determine whether or not products conform to certain standards of strength or purity, it becomes necessary to make a great many specific gravity determinations. Often times the sample is entirely too small in volume to use a hydrometer or plummet and the weighing in a pycnometer is slow and tedious.

The apparatus herein described has been in use in this laboratory for the past two years with a great deal of success with such products as spirits of camphor, turpentine, linseed oil, etc. The principle is old and the apparatus in general has been published in text books on physics under the names—Watt's Hydrometer and Hare's Apparatus.

The apparatus made in our laboratory consists of two glass tubes each 104 centimeters long and 5 millimeters inside diameter. These tubes are connected by means of rubber tubing to a Y-shaped connecting tube. This is then connected by means of rubber tubing to a bent tube having a glass stopcock. For convenience it is also well to have a rubber tube of sufficient length to connect to this stopcock tube. Back of the two long glass tubes is placed a meter stick, which is divided into millimeters and has been cut off at the 10 centimeter mark. The tubes are fastened permanently to this graduated scale in such a manner that the lower open ends of the tubes are 11 centimeters below the end of the scale. Place a mark on each of the tubes, one centimeter above the ends. These marks correspond to the zero mark on the meter stick. Place a 60x30 mm. weighing bottle below each tube. Into one bottle transfer about 25 cc. of distilled water and into the other bottle place about 25 cc. of the unknown sample. Raise the bottles until their bottoms nearly touch the tubes. Exhaust the air by suction, thereby drawing the liquids up into the tubes until the water reaches about the 750 mm. mark. Adjust the height of the two weighing bottles so that the level of the liquids in each coincides with the zero mark on each of the tubes. Then bring the water accurately to the 750 mm. mark. It is necessary in this determination that the two solutions be at the same level in the beakers, coinciding with the zero mark on the tubes. Read the unknown by the mark on the scale. Divide 750 by this reading to obtain the specific gravity. A table has been prepared, which gives the direct specific gravity for each millimeter, thus decreasing the time otherwise spent in calculating.

By this method it is very convenient to have the water at the same temperature as the sample, so that a comparison is always made at the same temperature. This determination is most conveniently made at room temperature. However, these tubes with the scale may be enclosed in a condenser tube so that the temperature may be controlled by surrounding water.

By this method less than one ounce of the sample is necessary for a determination. The apparatus is very easily cleaned by simply drawing a little alcohol or water up into the tube. We have made as high as twenty determinations on different samples of spirits of camphor in an hour with this apparatus.



Apparatus for Routine S. G. Determinations.

The method is accurate to the third decimal place.

D. T. Gunning, of Illinois, not being present, his paper on "A Reichart-Meissel Distillation Stand" was read by Dr. Bryan.

Reichert-Meissel Distillation Stand

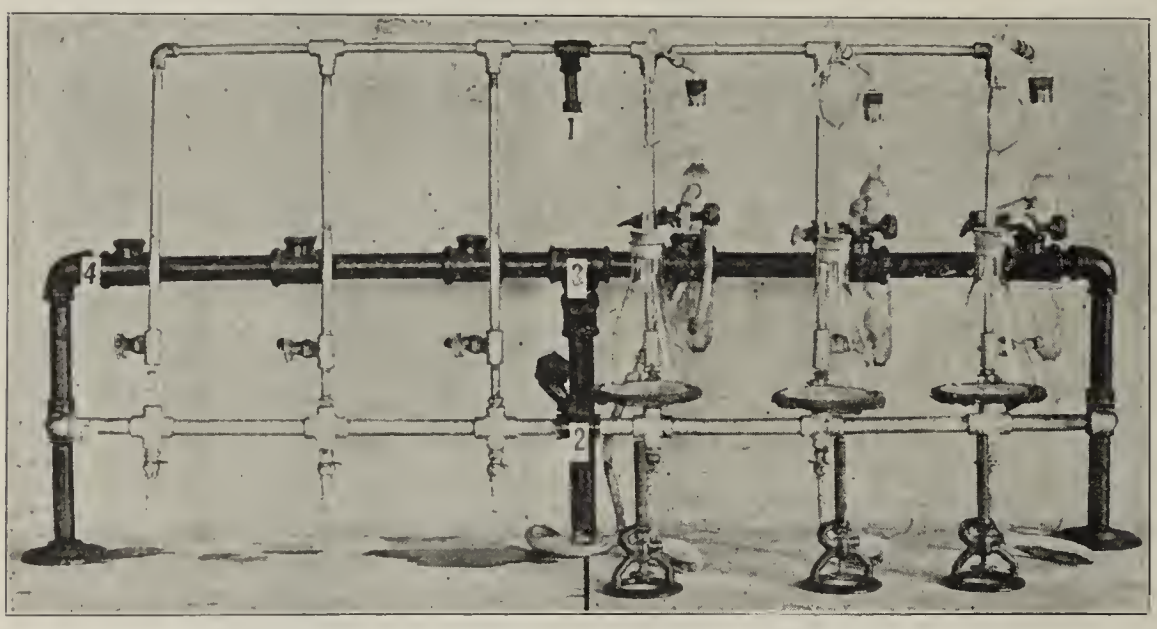


By T. Gunning—Illinois
State Food Laboratory



In the determination of the Reichert-Meissel Number, especially in laboratories where a large number of determinations are made, the apparatus involved is generally very cumbersome and requires considerable desk space, and for this reason a permanent stand suggested itself. The following photograph presents a view of the form of stand at present in use in the Laboratory of the Illinois State Food Commission. The stand is made entirely of gas pipe and fittings which can be seen in detail in the picture, the left of which shows only the stand while the right shows apparatus with glassware ready for use.

The stand proper which measured from the center of the base rings is 42½ inches long and 12¼ inches high, from the base rings to the top of the joint, is made of iron pipe. The long piece is ¾ inch and has on the upper surface six openings ½ inch in diameter which drain the condensers. Figure 3 shows the position of the main drain which is also ¾ inch material and connected with the laboratory plumbing. Figure 4 shows the position of



REICHERT-MEISSEL DISTILLATION STAND.

the plugs which are used to close the pipe at each end. To the legs which are of ½-inch material is attached at a distance of 5⅜ inches from the base a ⅜-inch pipe supporting a rectangle 33½ inches long and 16¼ inches wide. Figure 1 shows the water inlet which is of ¼-inch pipe attached to the frame which is of ⅛-inch material through which the water passes to the condenser stop cock into the condensers and out of the ½-inch openings on main pipe. Figue 5 represents the position at which the water pipes are plugged at the point where they connect with the lower frame of the rectangle which is the ⅜-inch pipe carrying the gas, the inlet of which is shown near Figure 2, the gas passing through this pipe to the burners. The pipe is plugged at each end at the points shown by Figure 6.

The stand is located crosswise at the end of a double laboratory table and the small desk space which it occupies, its compactness, ease of cleaning and of manipulation as regards the regulation of the water and gas supply, make it a most convenient and desirable piece of apparatus.

Dr. Frear: I am sure those who have to run a number of Reichert-Meissel at one time would appreciate the convenience of these views, showing how every part of the apparatus is made to do different things.

Dr. Bryan: It has met with favor by those who have visited our laboratory and some have requested pictures of it. I ask particularly that Dr. Bigelow get a cut. We asked one of our chemists to write the apparatus up, which has been evolved from time to time in the laboratory. The apparatus speaks for itself.

Dr. Frear: The next upon our program is "Laboratory Trouble." I know we all want to know about that, but there is some formal work not provided for on the program, with which we have to deal. I refer to the report of the Committee on Bacteriological Methods. We have not provided a method of dealing with such subjects and we are charged with so doing. The first is the manner and the second is as to the time and the time would depend upon the manner. If there is no objection, we will discuss that question at this time, before we take up the Laboratory Trouble.

Dr. Doolittle: It seems to me we ought to have someone present that is a member of the committee, before we take any action. It occurred to me that we might possibly appoint a committee to do some work for us, go over with us and prepare it in form for our consideration, because there will be considerable detail and it would be wise for us to dispense with the consideration of a part of the detail and then set a time for its consideration and notify Dr. Abbott of the time for the discussion and where and if possible, I would further suggest, that as some of us are not working bacteriologists, that it would be wise to select among us, a number who have had bacterial experience.

Dr. Bryan: I think it would be of a great deal of interest to us to know what states here have bacteriologists working in connection with their departments.

Dr. Frear: You have heard the suggestion from Dr. Bryan and I would like to ask what states here represented, have bacteriologists.

Representatives from Kentucky, Illinois, Iowa, Maryland and Utah, responded in the affirmative. Representative from Louisiana stated that that state had a bacteriologist and a laboratory and that the work was largely on molds. Representative from Alabama stated that Alabama had a bacteriologist under the State Board of Health. Dr. Frear stated that Penn. had no bacteriologist with the Food Department but that the work was performed by chemists who had had some training in bacteriology.

Dr. Frear: I would like to get this subject disposed of and then I will be glad to hear from the secretary.

Dr. Frear: The chair believes it would be practical for this association to reach such carefully attained results in this way; that a number of bacteriologists be put upon this committee who would be responsible for the work in bacteriology. This question is open for discussion.

Dr. Bryan: I move that a committee of three be appointed by the chair from such states as have men here, and the Department of Agriculture, who have had experience along that line, to take up this matter which is now under discussion and report back to this association. Motion seconded by Mr. Doolittle. Motion was stated by chair and carried.

Dr. Frear: I would like to know every man present who has ever served or is now serving as a bacteriologist. I would like him to report to the secretary.

Dr. Bryan: Mr. Taylor of Louisiana has had some experience and Mr. Chittick has had experience along that line.

Dr. Frear: The chair would request that the following committee examine the report submitted by Dr. Abbott which has been referred to us for recommendation and consideration and report to us its recommendations, if any, at a time to be fixed. I will make the appointment of this committee from the sections as follows:

1. Dr. R. E. Doolittle.
2. Dr. L. A. Bach, Chemist from Kentucky Station.
3. Mr. Geo. B. Taylor of Louisiana.

If there is no objection, the chair would suggest that this committee report immediately prior to the election of officers, after the Round Table on Expert Testimony on Wednesday afternoon.

There is also open for this section, the matter of presenting recommendations ourselves, in reference to our work. There is not time specified for this on the program or for the presenting of resolutions, if there are to be any. In order that we may have time

to carefully consider the matters coming within this scope, I would suggest that such resolutions be presented as far as possible on Wednesday P. M. I don't want to make the time too short for preparing the resolutions and I don't want to prevent the parties having conferences before presenting the resolutions, because it may save us much discussion. The chair has made these general remarks without the knowledge that there is to be any resolutions, but simply in order to facilitate the careful conduct of our business. If there is no other suggestion, we will consider this the first thing before the election of officers on Wednesday afternoon.

ROUND TABLE.

Dr. Frear: The next order of business is our Round Table on "Laboratory Trouble." The program committee has not selected the first confessor in this confessional, but I would like to ask our vice-president to assume some responsibility at this point and start the ball.

Dr. Chittick: This is very impromptu and I wish someone else had started this. It is rather embarrassing without having any preparation, to start anything at a meeting, but I will tell you what I have had on my mind all during the meetings.

This is our second meeting, I believe; last year this was organized—I believe the year before and this is the third meeting. It seems to me that a lot of good can be gotten in an informal way, by discussing our troubles. I want to know all I can find out, of some of the work I am at the present time engaged in. We have other problems that are baffling to me and I presume some of you have the same trouble with problems and if we can come here and exchange our ideas as to what we are doing along certain lines, it will help this Round Table.

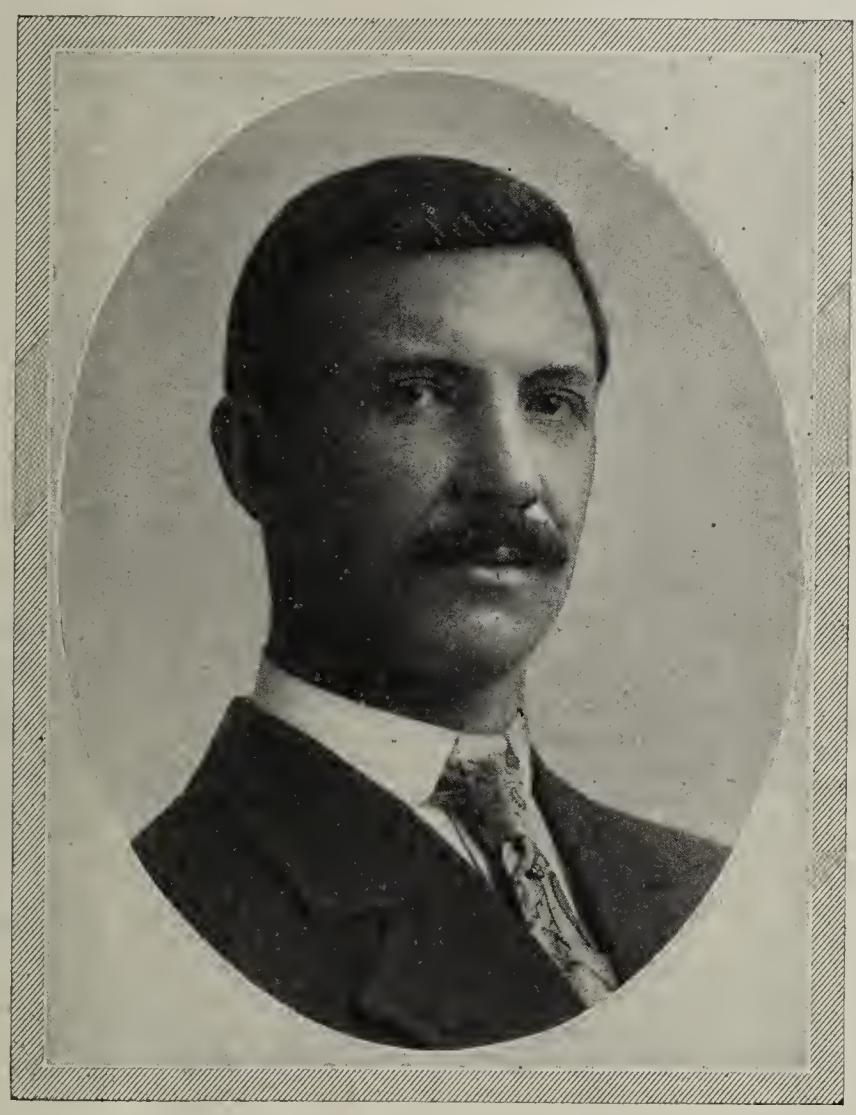
I will tell you briefly of some of the work we have been doing the last year and it may open up a trend of thought. as to the catsups on the market.

Our inspectors picked up one hundred and nine brands of catsups. One hundred and sixty samples represented one hundred and nine brands. These we examined microscopically, by using Howard's method for the yeasts and mold spores. Out of the hundred and nine samples we passed something like fifteen brands. It was quite a shock to the catsup people.

Dr. Frear: That so many got through?

Mr. Chittick: Well, they were shocked because of the catsup. One firm sent a representative who came in person to consult with us in regard to our examination. Some sent chemists who examined the produce at the market and passed it up all right. One young man came to our laboratory and I turned a sample over to him that we had examined and also three or four unopened bottles. He wrote back that their tests showed it was of full quality. Now, I was a little worried over this for I didn't know whether we were making our tests absolutely right, although we were following the method explicitly and although our man had not had a great deal of experience in that line, he was following the method carefully and I came to the conclusion that our methods came very close to those of Dr. Howard.

Some said that the trouble was that they had not double sterilized the bottle; that the bottles were filled and then heated and sealed and that was the last sterilization it had. I could not believe that to be true, because it seems to me if not completely sterilized, it would blow the stoppers. I don't know whether that is true or not. Any increase in bacteria I imagine, would have an increase in fermentation. I may be wrong. But in the investigations we made, I came to the conclusion that we could not bank a great deal on the bacteria count but depended almost entirely upon the per cent of fields containing moulds. I may be wrong in that statement but so far, this was my conclusion and belief.



DR. T. J. BRYAN,
State Analyst, Illinois.

I would be glad to hear from other states in regard to the catsups, those who have undertaken it. It is quite a problem.

Dr. Frear: It is quite a live topic.

Mr. Tolman: I can tell you how we handle that question of the increase of bacteria. As to the high content of bacteria, we examine to determine if there are any live bacteria. Of course, if the organisms are dead in the catsup, they were undoubtedly dead when the catsup was made; on that ground, they included products that were originally fermented.

Dr. Frear: Did you use a standard on that?

Mr. Tolman: I don't know how that is done.

Dr. Bryan: Suppose we made a determination as to whether or not there are any live organisms, then if there are not, the count is made by Howard's method and afterwards the question is considered of the material that went into the bottle at the time it was bottled. But if the count shows more than the twenty-five million, shall we condemn the catsup, irrespective of any other cause?

Mr. Tolman: That was the point I was discussing.

Dr. Doolittle: Would you condemn on a microscopic count?

Mr. Tolman: Well, I think not, because you can't act upon it. You can find indications of decomposition without fermentation. The presence of molds don't seem to produce decomposition. Bacteria produce lactic acid and alcohol. I would not condemn that catsup that had 25 million bacteria. I would want to be well over the line. I don't think anybody can be too close to the line on the question of the production of yeasts and bacteria or molds. You have to have some sort of a guide in this and you can be too liberal in consideration. If you try to go across the line, you get into trouble.

Dr. Bryan: I will state that Illinois has done a great deal along this line. North Dakota has, following the Government, fixed a so-called standard for catsups with reference to bacteria and molds and the number which could be present. We have found in following the work out that much of it must be for a time, educational.

We have taken the position that twenty-five million bacteria are not sufficient, that thirty or forty millions are, of themselves, not sufficient, to condemn a catsup. And the question arises, on what grounds can you condemn a catsup? We want to know the ground upon which to work and act. What does the presence of such a number of bacteria mean? Does it mean that the substance is putrid or decomposed? We examine with reference to yeasts and with reference to molds. We want to know whether the molds are alive and the yeasts are alive, just as we want to know whether the bacteria are alive and we want to know how to start from that standpoint also. And the question arises as to the relation of yeasts and molds to bacterial life. Unless we know just exactly the source of these micro-organisms in the catsup, we cannot act intelligently. We must also be able to give the manufacturer data on the sources of different molds, yeasts and bacteria and their effects on each other and I would be glad to know if any one has compiled any definite in-

formation along that line. It would be very valuable to us.

One question that we are discussing is that of quantity or standards and that is one thing that is troubling the Illinois Laboratory as much as it is troubling every laboratory. There doubtless has been a great deal done in some instances with reference to standards. In the case of Vanilla extracts, standards have been adopted by the different states for their working basis, as to the vanilla bean, etc. We have taken it upon us to make a ten per cent solution of vanilla bean and alcohol, to use as a standard for comparison, whereas the standard adopted places the minimum, at a ten per cent solution. Work has been done upon solutions that were much stronger than these. The data that has been taken by analyzing these extracts, is still in the hands of those that have conducted the experiments. Now, if we could get this data, it would be a very material help to us. In Illinois, we have two inspectors to each chemist. That means that we have to do a tremendous amount of routine work. Last year we analyzed over 7,000 samples and we did that pretty thoroughly, but we did not have time to do the investigation work that we ought to have had, and without assistance from the Laboratory of the United States Department of Agriculture, we cannot make the progress that we ought to make. And if anything can be done by this association to expedite the communication of data from the United States Department of Agriculture, to the different state chemists, it seems to me it would be a start in the right direction.

Dr. Frear: The subject is still before you, gentlemen.

Dr. Doolittle: With reference to the work mentioned, I think that has all been published and put out in circular form two or three years ago, covering all the work the Department of Agriculture has done on the subject. Of course, I understand the slowness with which these matters are published.

Dr. Bryan: But in the case of vanilla extract, it has not been published.

Dr. Doolittle: I don't know that any work has been done, except that which was published in the proceedings.

Dr. Bryan: He didn't publish that with reference to the extract containing more than ten per cent of vanilla bean.

Dr. Doolittle: I don't know about that.

Dr. Alsberg: Mr. President. I would like to make myself clear on one point. In all of these catsups, we do not condemn the catsups unless two of the determinations run over the United States limit; that is, when the catsup runs over 25,000,000, we condemn in case we have molds and one other constant, and they run over this amount, we condemn it. We are not quite so rigid as the standard calls for in condemning. Now, in regard to publication. It is impossible for us in the Department to publish more quickly now, but we are going to be able to do so, because the law regarding publication is going to be changed. We have already set in operation one change which will enable us to publish in journals, instead of being limited to volumes and in this way, permanent results may be put on record, in the journals and the gist given. This will enable us to publish more satisfactorily than before. There is another form of publication in the agricultural research journal. I do not know as to that, whether they will come more speedily than in the past.

Our bulletins will be given entirely to papers, those which are not suitable for publication in agriculture research journals. We have already begun to take things out of the ordinary journals, which in the past were printed only in the form of circulars. So, I think, will be able to get a good many things out more rapidly than we have been doing in the past. You get more in a journal than in a bulletin. A bulletin takes six months to two years to get through the government printing office and then we can't give out the results until satisfied with the data. This matter, you can't rush any. With the states, it is very different, because the results are known, simply as information coming from their laboratories. With the Department, everything must be carefully examined and all detail noted. Every detail is gone over, because the experience noted may have been insufficient to exhaust the subject and we don't want to put anything on record that is uncertain. When the Department sends out a record, it is very hard to make any changes.

Dr. Doolittle: In connection with what Dr. Bryan has said in reference to more uniformity among the different laboratories of the states: It is not always the large investigations that we want knowledge of, but just the little things that the chemist gets along the lines that he has knowledge of, anything that will be of benefit to other analysists. Take for instance, the results of the sugar vinegar which was given here.

My attention was called to the May results of the Dakota station, on the examination of soups. That struck me as a great surprise, and when I came to find out about it and referred to the literature, I don't think anybody has ever done anything along this line, and if so, it has been so little that it was hardly worth publication. When a man has made some little investigation in some line of work, in connection with a sample he is analyzing, and found something that would be of value to some other man, it would be well to let him know. And I think an interesting plan would be to have circular letters sent around to the different laboratories, giving information of that kind.

Dr. Bryan: If these letters could be sent to the state chemist in a confidential way, I think it would be very helpful.

In regard to the remark of Mr. Doolittle, one thing we have had difficulty with in our laboratory has been the determination of butter fat in ice cream. I would just like to make a little report, which might be of interest to you working along the same lines.

We tried the Babcock method with hydorcloric and acetic acids and it worked very nicely on the samples we tried first. But it was not satisfactory in later work. We got several samples and we ran a different check with other methods but we had great difficulty in getting clear fats by that method. We now use the Babcock method modified as follows: We put 9 g. of the ice cream in a Babcock milk bottle add 10 c.c glacial acetic acid, and heat and shake it until the whole is uniform in appearance; then added sulphuric acid a few drops at a time, shaking until it turns a dark brown, chocolate color and then place in the machine and proceeded as usual.

We tried a dozen different samples from different parts of the state, and in every sample the fat has been clear. We feel that we are progressing along these lines.

Dr. Frear: What is the physical condition of the cream at the time the samples and observations were taken?

Dr. Bryan: The samples come from different parts of the state, one hundred and fifty miles from the laboratory. The inspector takes a sample in a four ounce bottle, filling the bottle as full as possible. He waits until it melts and fills again with the cream, until it is full in a liquid state and then screws the cap down, so that it gets to us without being churned. Thus far about 8 samples out of 10 that have reached us, have been in fit condition for analysis.

Dr. Frear: Not churned and not sour?

Dr. Bryan: No sir. We put pills in containing corrosive sublimate, containing a red color, ammonium chloride. I can give you the formula, if anyone wants it.

Mr. Taylor: Do you get the same results from your fruit ice cream?

Dr. Bryan: Two of the four samples we examined gave the same result.

Mr. Taylor: Do you ice your sample?

Dr. Bryan: No sir. The samples are sent by parcel post.

Dr. Tolman: If they sour before they arrive, are the results any different?

Dr. Bryan: It is very difficult to get a fair sample from sour cream, of course. If the cream starts in in a liquid form, the separation takes place rapidly, and if it sours, it is difficult to get any uniform results such as we would want to give in court.

Dr. Frear: The Chair has had some proceedings which seem to call for discussion in detail for obvious reasons. We have been unusually favored with working material, to consider the separations of fats, and the material was taken from the freezers and from the manufacturers by the inspectors and sent to us by express. We worked under methods and examined the cream, with a sample to be used in making up the ice cream. Scovill examined one, examined the upper layer, a half or a quarter, and we found a difference of 22%. We used a triplicate sample of everything to guard against laboratory variations. The samples came in in a frozen solution, at the time they reached us, a liquid, apparently a liquid. The fats separated to the top very distinctly, so as to indicate very much difference in the fat content at the top as compared with the lower half of the container, where the curd had separated. We had large samples and used large samples and worked carefully. We have still had difficulty in getting concordant results, after carefully drawn determinations.

I have likewise found in the separation of fat from a thick layer of cream, by removing with pipets, 1. and 1., while

I took off the fat, I have still had difference in working, variations that were much larger than I expected. In more cases than one, with considerable care, I have noticed one per cent; in one case, six per cent. I am very careful, therefore, in condemning. I would rather any time allow a poor cream to escape than to run any risk in condemning a fellow, when the difficulty is not over in the laboratory.

Dr. Bryan: The standard in Pennsylvania is 6%?

Dr. Frear: Yes, 6% there.

Dr. Shannon: It seems to me that we might consider these meetings as a place for discussion of many things, for instance, pops and soda water. It is a question which we should consider along with other things. We have capsicum, ginger ale, oil of sassafrass and sarsaparilla. It is a question of commercial drinks. It is the name of things that have to be handled. And I think if we would get together, and all work together, we could make up standards and in exchanging them, might be able to accomplish much, otherwise, we are going to have discussions for some time, trying to do just the reverse. It seems to me, Mr. Chairman, that at our next meeting, we ought to have some discussion by the standard committee, with reference to what the standard was based upon. Now, the principles upon which the federal standard was based, as we all know, was Circular 19, but we haven't covered all the ground and we should do this as far as it can be covered and as soon as it can be covered.

Dr. Frear: Having had the responsibility of serving for many years the body in question, I have noticed and realized and continuously found that it is very hard to get a small committee to agree at all points, and sometimes very hard to get them to agree at any point as much as the major question applies to the practical question, because standards cannot be made by one word. There are many things to consider and any one of us trying to get his standard as to the questions that are presented that he has studied carefully, cannot agree to others, from his point of view. Certainly, it was not expected on the part of the standard board in making these recommendations to the association, nor upon the part of our representatives, that what we had done was as unalterable as the laws of the Medes and Persians. I think that every member of the committee felt that none of us, individually, knew enough to do it properly, but that all of us together, with the knowledge we gained during the years we were acting together, couldn't do other than to present the case as we have. But with the multiplication of arts, with our progress and the knowledge that has come to us since, makes a revision necessary and the standards should be revised from time to time.

On the other hand, I would say, that at the start, there was no one of us thought that what we would do, would be so far reaching in its effects. We don't speak of it at public meetings, because we might leave a wrong impression on our hearers. We don't intend to lead them astray or to lay ourselves open to charges of serious inconsistency. However, I do not mean that we should not discuss principles, because I think the better we can deal with principle on trials and through the representatives in the official world, the better it will be for us all.

Dr. Chittick: May I ask a question? I would like to ask if there is anyone who feels as though we are getting anywhere with the vinegar. I feel as though I am losing ground on cider vinegar. We are having an awful time with it. I feel discouraged with the vinegar business.

Dr. Bryan: I will say that in Illinois, we have done a great deal. We have one man working on nothing but vinegar for three years and he is considered an expert on vinegar.

One of our great problems in vinegar has been caused by this combination of molasses and distilled vinegar.

You will notice in the paper I just offered, the finding of the invert sugar, showing on the polaroscope, of compounds of molasses and distilled vinegar polarized to the left. That, in my opinion, was due to the fact that it had been molasses in the foundation and contained unchanged sugar. Wherever molasses vinegar is put into distilled vinegar, you will probably find, not a complete but an almost complete conversion of the levulose into alcohol, whereas, what is not changed to alcohol, would be dextrose, or some other substance which is dextra rotatory.

Dr. Chittick: From the samples sent in to you, can you see a material change in the cidar vinegar on the market, is it better, or is it as poor as it used to be?

Dr. Bryan: I don't think it is as poor as it used to be in Illinois. The greatest trouble has been with these mixtures. The question of mixtures of molasses vinegar and distilled vinegar that has no color; the result imitating cider vinegar in color being sold in the state of Illinois is now before the supreme court of the state and we expect a decision from it shortly.

Dr. Frear: We have in Pennsylvania at the present time, a very unsatisfactory situation regarding cider vinegar. We have probably collected five hundred samples within the last six weeks. We are certainly finding out a great many things about vinegar and we have had a great many cases in Courts. When a man was on the stand, the court would expect him to give the per cent of his findings and to tell just what they were with certainty and would say, "Well, your testimony is worth but little, if you can't tell just what this is." And a great many times, we have had the bother of taking cases out of court because of the attitude of the courts.

We have had the fermented apple solids, the apple jack solid to contend with. This gives us ash and practically everything else except it might be the glycerine. We haven't so far, been able to get sufficient facts to be certain, in our dealings with these particular people. It is a very ingenious combination and would certainly be troublesome to the unsophisticated.

Dr. Doolittle: I think that the difficulty with the vinegar work is due to the sophisticated methods of preparation. We have all been through the old processes, starting in at college and we have our old methods of determination, against the cleverness of the manufacturer in the addition of cider and apple solids, etc. I know of a locality where vinegar was being manufactured and sold in certain districts, but was not shipped out of the state. The manufacture was restricted to certain quantities and manufactured under an entirely different procedure in their state and they are compelled to do this, because they can't meet the competition in other states. The analysis of vinegar is a long, tedious process and, as Dr. Frear has said, the court requires you to tell exactly what the product is. We find this not in the court of Pennsylvania alone, but in the Courts of the United States.

Dr. Bryan: In carrying on these analyses, we don't carry out the glycerine analysis in all of them. We sometimes make the analysis but we do not carry it out in all.

Dr. Doolittle: I think there is a great question in the sale and in the confiscation where they may be made under seizure.

Dr. Tolman: There is one thing I want to say and that is on the standard. I think there has been nothing which has done so much to promote the adulteration of all preparations as the standards given in circular 19 because this is used as a guide for adulterations, in the making of their products, fictitious vinegars and others. I think the less of analytical figures we put into the standard of natural foods, the better we are going to be off in the course of our work. It is astonishing to me how near the limits they will come in these products and I believe that we should make it such a difficult thing, that we will accomplish our object or compel the manufacturers of these products to get out of the business of making them.

We are going to put out our work as soon as we can get to it. I want to say that owing to the publication of the standard upon adulterations, I felt that it was not wise to give out the information that we had for a number of years, because I felt that a good many of the things we found would be met. But I saw that was a wrong proposition and that it would have been better to do the work as we went along and give everybody the benefit of it and make the determination of vinegar as

The trouble with the standard is, that as it stands, there is no relation existing between one figure and another and as a result while you may meet everything there, you may have an absolutely abnormal product.

(Here followed some discussion that the stenographer was requested not to take.) * * *

The Chair here ruled that the minutes of the stenographer be held confidential until further action.

Adjournment.

After adjournment it was understood that the section would meet on the following day, at 2:30, and after certain necessary preliminary discussion the program would be taken up and followed so far as it would be possible to do so. The first paper read was the paper of Prof. Benjamin Harrison of Illinois. In the absence of Professor Harrison, his paper was read by Dr. Bryan of Illinois.

Section B—Association Official Food and Drug Chemists

AFTERNOON SESSION, JUNE 18

THE meeting was called to order and the committee on bacteriological investigation reported as follows:

Dr. Doolittle (chairman): Your committee has considered the report of the Bacteriological Committee of the General meeting and we think it best that this matter go over another year in order that it may be considered by the other members of the association. None of the members of the committee feel competent to pass upon the provisions they have submitted and they should be put into form into which they could be submitted to the various state departments. We therefor recommend that these methods be published and distributed to the various members of the association, with the request that they be studied and criticised and such criticisms be reported to this committee on bacteriology, which should be continued in their present capacity for the present.

The Chair: You have heard the report of the committee with the recommendation that the section recommend that the methods proposed by the committee on bacteriological investigation be published and distributed to the members of the association for criticism, and such criticism be reported to the chairman of the committee, Dr. Abbott and that the object be brought to the attention of the association at its next annual meeting.

Dr. Doolittle: I would like to consult with Dr. Abbott and with Dr. Prof. Ladd, and it is their opinion that we regard this start as a report of progress.

The Chair: The matter is before the section.

Dr. Bryan: I move that this section report to the association the recommendation that the committee be continued; that its report be published, distributed and criticised during the coming year, and that the committee report the said results and criticisms at the next meeting. Motion was seconded by Dr. Harms and carried.

Dr. Bryan: I think that the Chair should present the matter.

The Chair: I am obliged to leave. I was hoping that the matter might come up tonight or tomorrow morning. The chairman of the committee can take the opportunity.

Dr. Bryan: I move that it be left to the chairman of this committee to report to the association, and if anything should occasion his absence, then it would depend upon the present vice president. Motion seconded by Mr. Harms (Utah), and carried.

The Chair: The next is a paper by Dr. Jaffa of California. He called my attention to the absence of Dr. Faust and owing to this fact, he would be compelled to be absent. Unless he has gotten his paper to the Section—

Dr. Bryan: I move that if the paper puts in an appearance before the close of the meeting this afternoon, that leave to print be granted to Dr. Jaffa the paper, "Determining the Per Cent of Oil in Extract of Peppermint," and consider it as a report. Motion seconded by Mr. Chittick and carried, read by J. R. Chittick.

The Chair: The secretary will kindly indicate the action to Prof. Jaffa.

The following paper, "A Carbon Dioxid Aparatus for CO_2 in Baking Powder," by Prof. Harrison of Illinois, was read by Dr. Bryan.

An Apparatus for the Rapid Determination of Available Carbon Dioxide in Baking Powder



By Benjamin Harrison—Illinois State Food Commission



THE determination of available carbon dioxide in baking powder by the provisional methods of the Association of Agricultural Chemists, is a time consuming process as it is first necessary to determine the total carbon dioxide, and then the residual, in order to calculate the available. Even if we use the modification proposed by Leach, substituting water for the acid in the Knorr method, and calling the gas evolved the available carbon dioxide, the time required is still so great that the number of determinations that can be run in a day is very small.

Since comparatively few baking powders run below the legal requirements, it seemed desirable to have a method that could be run in a short time, even at the sacrifice of some of the finer accuracy. For that reason we have adopted in the laboratory of the Illinois State Food Commission a volumetric method, which in the two years that it has been in use, has proven even more satisfactory than we had anticipated.

In determining the percentage of available carbon dioxide in a baking powder, one-half gram of the sample is weighed into the small flask which is then put in place on the apparatus.* The stop cock is now turned so as to connect the flask with the eudiometer, and the gases put under atmospheric pressure by bringing the saturated salt solution in the leveling bulb even with the solution in the eudiometer. The stop cock is now turned so as to connect with the tube leading into the air, and the gases in the eudiometer driven out by raising the leveling bulb. The stop cock is turned again so as to connect the flask and eudiometer, and the leveling bulb lowered to the table, giving a slight vacuum in the flask.

Two cubic centimeters of previously boiled, distilled water are now run into the flask from the small graduated burette, and the apparatus shaken or rotated so as to mix the water thoroughly with the powder. Heat is then gently applied to the flask until the water just reaches the boiling point. Care must be taken here not to char the powder or boil off the water. The whole apparatus is allowed to cool to room temperature, the gas in the flask and eudiometer brought under atmospheric conditions by raising the solution in the leveling bulb and its volume read. The temperature and barometric pressure are also taken.

We now have a volume which represents the gas from the baking powder plus two cubic centimeters from the water added. Experiment has shown that the equivalent of one cubic centimeter of carbon dioxide is retained by the water and powder in the small flask, so if we subtract one cubic centimeter from the observed reading we have the available gas equivalent of the sample taken. The corrected volume of the gas is reduced to 0° C. and 760 m.m. pressure, and the number of cubic centimeters found multiplied by the weight of one cubic centimeter of carbon dioxide, giving the weight of carbon dioxide in the sample. This weight if divided by five-tenths and multiplied by one hundred gives the percentage of available carbon dioxide in the sample.

In the journal of the American Chemical Society, volume 31, February, 1909, on page 237, is a table by Prof. S. W. Parr, giving the weight of one cubic centimeter of carbon dioxide at various temperatures and pressures, which saves considerable calculation.

It has been the custom in this Laboratory to check the results of those samples which fall below the legal requirement, by the Knorr method as modified by Leach. The results by our method check within one or two tenths per cent with the above method, and our method has the added advantage of requiring less than one-half the time.

The Chair: May I ask the reader as to the conditions of temperature, the temperature of the room.

Dr. Bryan. We assumed, before heating the flask, that the temperature was that of the room. After the gas was evolved, we allowed it to stand until the minimum was reached, the temperature of the room. By experiment, we found that a half hour was sufficient time. We used this only as a sifter to find out how the samples run.

The Chair: This is not a result you would pass on the witness stand?

Dr. Bryan: No sir.

Dr. Bryan: I would like to say in

connection with the baking powder paper I have just read, if there are any states that do not have a law or requirements upon the amount of available CO_2 which there is in Baking Powder, they should get one.

I found in taking up the baking powder two years ago, that the conditions were very bad, not as indicated in this paper, but found many samples that were down as low as 1%. A great deal of work can be done on baking powders in the different states and I think it would be a good thing to investigate and find out what these powders are.

Prof. G. H. Chittick's paper on "A method for Determining the Per Cent of Oil in Extract of Peppermint," was read by J. R. Chittick.

Method for Determining the Per Cent of Oil in Extract or Spirit of Peppermint



By G. H. Chittick
Des Moines, Iowa



BALANCE an ordinary 18 Gm. Babcock butter bottle, which is graduated from 0 to 100 per cent. Weigh accurately into the bottle 10 Gms. of white petrolatum oil. Add 20 cc. of the extract. Shake well and let separate several times. Add water to base of neck and shake well. Centrifuge five minutes. Add water to bring oil into neck. Centrifuge five minutes.

Run a blank using 20 cc. alcohol in place of the extract.

The difference between the readings gives the per cent of oil of peppermint by volume in the extract.

Determine the refractive index at 20° C. Also determine the specific gravity.

Note—the petroleum oil used is a water white petroleum having a density of .860. This oil may be colored with dimethyl-amidoazbenzene, which greatly aids in reading the oil column. A few drops of hydrochloric acid may be used in the test which makes the difference in color more pronounced.

Refractive index of solutions of peppermint oil in alcohol:

Per cent of oil by vol.	Refractive index 20° C.	Per cent of oil by vol.	Refractive index 20° C.
0.	1.3637	10.0	1.3735
0.5	1.3642	10.5	1.3740
1.0	1.3647	11.0	1.3745
1.5	1.3652	11.5	1.3750
2.0	1.3657	12.0	1.3755
2.5	1.3662	12.5	1.3760
3.0	1.3666	13.0	1.3764
3.5	1.3671	13.5	1.3769
4.0	1.3676	14.0	1.3774
4.5	1.3681	14.5	1.3779
5.0	1.5686	15.0	1.3784
5.5	1.3691	15.5	1.3789
6.0	1.3696	16.0	1.3794
6.5	1.3701	16.5	1.3799
7.0	1.3706	17.0	1.3840
7.5	1.3711	17.5	1.3809
8.0	1.3715	18.0	1.3813
8.5	1.3720	18.5	1.3818
9.0	1.3725	19.0	1.3823
9.5	1.3730	19.5	1.3828
		20.0	1.3833

The following paper was read by F. L. Shannon of Michigan, on "The Water Content of Oysters."

The Water Content of Oysters



By F. L. Shannon—Michigan
Dairy and Food Laboratories



THE oyster is yearly becoming more an article of every day food and people throughout the length and breadth of this country are learning how to prepare it in many different ways, making of it a very toothsome and wholesome article of food. With this gradual increase in the production and distribution of oysters, comes a matter for food officials, namely, the inspection of the oyster, for the purpose of determining whether or not they are adulterated within the meaning of the food laws.

There are three things which constitute adulteration of oysters under the food laws of most of the states. We may say that oysters are adulterated if they consist wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance; or if any inferior or cheaper substance or substances have been substituted wholly or in part for them; or if they contain any added substance or ingredient which is poisonous or injurious to health.

In the first named provision it is quite impossible and not practical for each state department, located at a distance from the oyster beds, to attempt to determine whether oysters consist wholly or in part of decomposed, putrid, infected, tainted or rotten animal or vegetable substance, for the reason that such inspection demands an equipment that most Food Departments are not provided with, and secondly, that the proper place for a determination of this sort is at one of the oyster beds themselves. Therefore, we depend upon the Federal Department for this inspection and assume that oysters shipped in interstate commerce are wholesome articles of food.

This leaves then for the State to determine whether or not they contain added substances injurious to health such as preservatives,—whether they contain substances which have been substituted wholly or in part, such as added water.

A resume of the reports of the various State Departments will show that this is the common adulterant sought in the inspection of oysters. It is the purpose therefore, of this paper, to bring this phase of the subject before this body so as to arrive at some conclusion, if possible, as to what constitutes added water in oysters.

At the present there seems to be no definite standard for the per cent of water which oysters should normally contain. In the monthly bulletin of the Indiana State Board of Health for November, 1908, is a report of the analysis of 7 samples of solid pack oysters and 2 samples of shell oysters which gives an average of 26.76 per cent water in the sample. In the same publication is a report of the analysis of 23 samples of watered and iced oysters all of which show more than 26.76 per cent of water in sample. I would therefore assume that all samples showing over 26.76 per cent water would be considered in Indiana as containing added water. In Maine, the regulation calls for not more than 17 per cent by weight of free liquid, nor less than 10 per cent by weight of dry solids. Therefore, in Maine, we would assume that normal oysters would not contain over 17 per cent free liquid.

In Iowa the State law provides that oysters shall not contain more than 16 2-3 per cent by weight of free liquid. This provision of the law no doubt is based on the previous experience of the Iowa authorities,—so therefore, the normal water content of oysters of Iowa is not over 16 2-3 by weight.

In Michigan we have no law regulating the amount of water that oysters should or should not contain, neither have we promulgated any regulation concerning the same. During the latter months of 1912 we made an inspection of the oysters as sold by the retailer and found among other things, that a number of the samples contained added water. It was during this inspection that this difference in state standards came to my attention. Owing to this fact and to the fact that I could not find that any definite standard had ever been set by any food standard committee or other authority, it seemed necessary to determine if possible, what the limits were on oysters coming in to Michigan. To do this, various oyster jobbers were visited in the city of Detroit, which is perhaps the largest oyster distributing center in the state and ten 5-gallon sealed cans selected. These cans were purported to be just as they were received from the shippers at the different oyster beds and represented a number of different oyster growers in different localities.

The seal was broken, the oysters thoroughly stirred from top to bottom by means of a dipper, and a pint of oysters removed to a pint fruit jar. The samples were sealed, packed in ice and shipped to the laboratory for analysis.

The method of analysis used was about the same as that used in all other food laboratories. The contents of the can were poured into a sieve and allowed to drain into a weighed evaporating dish for ten minutes. The weight of the liquid was then determined and also the weight of the oysters remaining on the sieve. The dish containing the liquid portion was then placed upon a water bath and the water evaporated off, thus determining the amount of solids which passed thru the sieve. The results returned as unabsorbed water being calculated from the loss in weight upon evaporating the liquid portion. The results of this analysis are as follows:

From the above results, then, in Indiana all of these oysters would be considered as normal oysters. Following

No. of Sample.	Total wt. of Sample.	Wt. of Solid Portion or Oysters.	Wt. of Liquid Portion.	Total Solids in Liquid Portion.	Per cent Solid Portion or Oysters.	Per cent Liquid Portion.	Per cent Unabsorbed Water in Sample.
	Gms.		Gms.	Gms.			
1.	463.05	402.4	60.65	4.15	86.9	13.1	12.30
2.	475.65	462.8	12.85	1.00	97.29	2.71	2.49
3.	467.8	404.45	63.35	3.6	86.45	13.55	12.77
4.	509.2	480.5	28.7	2.65	94.36	5.64	5.11
5.	484.10	431.95	52.15	3.00	89.22	10.78	10.15
6.	475.47	387.35	84.10	5.15	82.16	17.84	16.74
7.	505.5	418.35	87.15	6.90	82.75	17.25	15.87
8.	473.05	365.5	107.55	7.65	77.26	22.74	21.13
9.	498.15	427.5	70.65	2.50	85.81	14.19	13.68
10.	489.0	435.65	53.35	5.05	89.08	10.92	9.87
Maximum	509.2	480.5	107.55	7.65	97.24	13.55	21.13
Minimum	463.05	365.5	12.85	1.00	77.26	2.71	2.49
Average	484.1	421.65	62.05	4.17	87.13	12.87	12.40

the Maine regulation or the Iowa law, 3 of the samples, 6, 7 and 8, contain an excessive amount of free liquid. It would seem, then, that here is a question that the food standards committee of this Association or some other similar body might well consider and adopt some definite regulation that would be uniform in all states. I am not prepared to say what that standard should be until more work has been done, as this work here reported only represents work on northern oysters, principally from Rhode Island and Maryland.

Miss N. A. Childs of this laboratory performed the analytical work on these samples and I hereby acknowledge my indebtedness to her.

The Chair: You have heard the paper, are there any remarks?

Dr. Bryan: I would like to state that from the authorities quoted by Mr. Shannon, he spoke of one that ought to be in a report form. Dr. Biglow, I believe, at a meeting of this association, read a paper as to the water content of oysters. Perhaps Dr. Biglow can—

Dr. Biglow: It was a paper at Mackinac. I didn't have it in the American Food Journal. I had a paper also before the Association of Physiological Agricultural Chemists, in which I found it necessary to change some of the conclusions I had reached but a few months before.

The way we worked was to have some samples from the oyster bed and also some of the water.

At the time of the meeting of this association in Mackinac, I. had pretty clear ideas of what the standard would be, necessarily and I was able to tell apparently about where the line ought to be drawn; about what per cent of water; what per cent of total water and total solids.

We collected oysters from Massachusetts north, through the gulf, going into Puget Sound, went too far, took some oysters that didn't feed along the line; the southern coast, down into Texas. Some oysters were collected and turned into water containing one-fourth per cent of salt and the analysis proved conclusively that they had been soaked.

We collected more oysters and we had no samples to mix them with. They were all examined and the water which they got, at the same time, and it showed one-quarter per cent salt. With this as a key to follow up the clue, we found that the per cent of water in the oyster is determined by the salinity of the water from which you take it. Oysters will carry, perhaps 30% of solids, but if you get them from Chesapeake Bay, fed up where there is only one-half the salt content of the water, that will come down perhaps to twenty per cent of solids. These oysters were taken where they don't become plump and when they don't become plump, they are hard to open. The food supply and salt content couldn't be compared. The conclusions that we reached were entirely disillusionizing, and I didn't publish the paper. At the same time, I have never published the paper or reported it. I have used it and sent data to state chemists. I have thought that I would make a report to Dr. Arnsberg and allow the bureau to do what they please. The solid contents depend upon the water in which they are grown.

I found matters on the examinations that would tend to distinguish between the oyster grown in water very brakish, very little salt and oysters taken from salt water and soaked over night. We took the solid nitrogenous content and the phosphorous content, but we didn't do the soluble phosphorus and phosporus combined we were doomed to disappointment in it.

The Chair: Did you make any study of the salts extracted from the oysters by soaking in water, did you arrive at any conclusions as to the effect of the water?

Dr. Biglow: No sir, simply seemed to dilute the salt water, so we didn't get any satisfactory results. Mr. Barnes thought at one time that he had the minimum contents of the salt accurately, that he had the key to the question. He told me once he had apparently solved the problem and published a paper. But it was an unsatisfactory solution. One of the inspectors happened to get these oysters and why we didn't get it, I don't know, because we sent out to oyster beds in every state, but we just didn't happen to get that result before. We have no results that you could depend on since that time.

We had a curious experience down in Mississippi, near Biloxi, Miss. The oysters were taken from not far out and we brought them in and floated them. Instead of looking to the floating oysters for the solid content, we looked at the water and thought the samples were mixed, apparently, after they had been taken.

Two of the inspectors had taken considerable samples and kept them separate; taken them out of different beds and shipped them in different boxes, shipped one before the other was taken out, so that a mixture was impossible. One contained more salt than the other. It seemed that a southwest wind had sprung up and had been blowing for some time down the bay before the oysters were taken from the beds and these oysters contained a different amount of salt than the ones taken when the wind was not blowing. There is a difference in these oyster beds too at high tide, and at low tide, quite a little at low tide and pretty nearly none at high tide and conditions change. A great deal will depend upon the season, the height of the tide, and the amount of fresh water coming down in the direction of the beds.

The Chair: In these investigations, did you make any study of the waves, whether they are responsible for the water contents or any change in the salinity of the water sources?

Dr. Biglow: Yes, but our results are not constant. The shell seems to be pretty tight and when you open it, the contents or volume will often be slight. We have examined them at flood tide and at low tide. Some oysters will clamp every time you open them up. Sometimes you will find a great change, at other times, practically no change at all. The question seems to be very unsatisfactory.

Dr. Rambler: I would like to say that I appreciate the difficulties that Dr. Biglow has found with the per cent of salt, as it depends very much on the water and seasons. I don't know how it is in other bays, but I know that the water in Chesapeake Bay varies in its salt contents in a very marked degree. There is an investigation going on now by the states of Maryland and Virginia and the United States Government, as to the condition of Potomac river and the oyster beds, but the results are not yet published.

In the last expedition down the Potomac River to the Bay, we found that the salt content of the water was twenty to twenty-five per cent lower than it was on the expedition made before that. I doubt if such a state of variation as that is could be in any other body of water. But that is in a part of the Potomac River where the movements

of the salt water can be shown, but in the upper part of Chesapeake Bay and its estuaries, the variations of the salt content are greater than we noticed in this case. The tepidity also varies greatly and I should imagine that that would have considerable effect on the solid matter contained in the oysters.

There is another question too, that of the protection of oysters upon the market. That, in my opinion, is the most serious question that comes to the Chesapeake Bay oysterman, that is the amount of the water allowed on the market, when the food material is subject to such change.

Dr. Biglow: Of course, oysters soaked with it, is usually for the purpose of fraud.

The Chair: There is a distinction between the two.

Dr. Bigelow: The man who sells oysters that are fed in shallow water, does not get any greater value, while the person who soaks them, does get a greater value. That explains the situation, one sells gallon for gallon and the other sells two gallons of soaked oysters against the one.

There are some oysters grown in shallow water near the ocean, that are salt. Now, they might think it policy to refuse these without an examination of the water, yet water might have been added so as to double by soaking.

Dr. Doolittle: I want to call attention to Mr. Shannon's statement in his paper that it is not necessary for the state to examine oysters to determine whether or not they contained decomposed substances. I think that is one of the most important of all, because oysters decompose and become contaminated in the shippers' hands.

Mr. Shannon: I didn't mean to infer that it was not necessary for us to do so. I said that the examination ought to be at or near to the beds because in a number of the departments there was not sufficient equipment. I think that it is necessary, but that not all laboratories are equipped. They can determine whether or not they are putrid or decomposed, but I had in mind more extensive determinations.

The Chair: There is a question in my mind about the Round Table.

There are some additional matters of business to care for at the conclusion of the Round Table.

Dr. Bryan: I move that the Round Table come at the end of the program.

Some desire to visit the syrup factory to which we have been invited.

The Chair: The motion is before you and if there is no objection, we will proceed to the election of officers.

Dr. Bryan: I move that we proceed to the election of officers and that each member from a state, entitled to a vote, vote, 1st for president; 2nd vice president; 3 secretary; and that tellers be appointed to count the vote: seconded by gentleman from Utah.

The Chair appointed Mr. Ross of Alabama and Mr. Stallings from Atlanta as tellers.

The secretary called the roll of states and the following responded: Alabama, Iowa, Illinois, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Pennsylvania, South Carolina, U. S. Dept., Utah, Michigan.

The Section then proceeded to vote with the following result:

For President—Chittick, 6; Stallings, 3; Frear, 4; Tolman, 1; Bryan, 1. 15 votes cast.

For Vice President—Ross, 9; Chittick, 5; Stallings, 1. 15 votes cast.

For Secretary—Hand, 1; Shannon, 3; Taylor, 1; Bryan, 9. 14 votes cast.

The Chair announced Mr. Ross as vice president and Sec. Bryan of Illinois, were elected.



F. L. SHANNON,
Chemist Michigan Dairy and Food Department.

A motion was made and carried that the Secretary cast the ballot for Dr. Chittick as president of the section for the ensuing year, which was so done.

Mr. Chittick was called upon for a speech, which was as follows:

Gentlemen: I haven't had time to prepare any speech, as this was wholly unexpected, so I will just thank you. It is an honor that I appreciate and I hope I can make as good a president as Dr. Frear has made. I thank you.

Miscellaneous and unfinished business.

Dr. Bryan: I would like to report as secretary for the year just ending that I sent notices of the time when the meeting was to be held with the request that the subjects for papers should be sent to me. The responses are indicated on your program. If you will look that over, you will find that the secretary received, outside of his own state, favorable responses from three states.

We have had a very successful meeting, but I believe that the time, as fixed by the constitution of the association for the secretary to get up and publish a program, thirty days is entirely too short. The time of meeting should be set not less than ninety days from the date of the meeting and not less than sixty days allowed to the chairman and the officers of sections to report to the Secretary what program the section will have.

Now, you can see, in corresponding all over the United States, that time is very necessary, but I can conceive of no reason why the secretary of the main Association should know what the program should be sixty days before the date of the meeting of the Association. It occurred to me that if the secretary of the main association was informed thirty days before the meeting of the Association, it would be plenty of time. And I would recommend, Mr. Chairman, that this association consider the advisability of recommending that the main association change the constitution with reference to this matter, from sixty to thirty days prior to the meeting of the main association, for the time at which the program should be completed.

Mr. Mason: I second the recommendation. The Chair put the question and it carried.

Dr. Bryan: There is another question that has been raised and that is in reference to committees which are to report back to the next convention. I speak regarding the keeping up of certain lines of scientific work that should be delegated to committees by the main association and it seems to me that the committee which does the scientific work ought to be composed entirely of members from the scientific section.

The Chair: The next is the Round Table.

Dr. Bryan: It is time to go on the excursion to the syrup factory and I move that we do now adjourn, subject to the call of the Chair, in case we have an opportunity to meet for the Round Table and that otherwise, we dispense therewith.

Motion seconded by Mr. Ross (Alabama), and was carried.

The Chair: And the Chair will infringe upon the courtesies of the membership far enough to say, he will not try to find a time to call a meeting, unless the members indicate to him that they care for such a session.

I desire, in closing this last formal meeting of the section, to express to the members of the section, my appreciation of their uniform courtesy to the chair.

Meeting here adjourned.

KINEO, MAINE, NEXT MEETING PLACE.

Next year the pure food officials and their friends will have an opportunity to taste the salted air of Maine, as it comes from the coast and settles at their headquarters on Moosehead Lake, where sits the beautiful little summer town of Kineo, Me. This place was selected at the convention just closed as the meeting place for the eighteenth annual convention of the American Association of Food, Dairy and Drug Officials.

The accommodations for the visitors at Kineo is ample, the Mount Kineo house, located at this place, being large enough to take good care of the association members and their friends.

In a description of the place selected for the convention it has been said:

Kineo is unique among summer resorts, and in view of what has been done in the last two years in the development of Moosehead Lake as a resort center, and its elevation and central location geographically, Kineo is destined to be the greatest inland resort in this country.

When one comes to realize the development of Switzerland—as shown by the increase in capital invested in its hotels of sixty million dollars in the last eighteen years; by the hundred and fifty million dollars invested in hotels in the last fifty years; and by the forty million dollars left annually by tourists in this little republic—consider the possibilities of the State of Maine, with an area more than double that of Switzerland; with a thousand miles of seashore; with range after range of mountains; with leagues of virgin forest and with sixteen hundred lakes within its borders!

One hundred and forty miles north of Portland (as the crow flies) lies Moosehead Lake, which in any country but this land of vast natural phenomena would be called an inland sea. Over one thousand feet above sea level, Moosehead stretches its crystal length forty miles almost due north and south. Surrounded by heavily wooded slopes or towering cliffs, the lake presents a scene of wondrous grandeur.

From the shores of Moosehead an unbroken wilderness extends one hundred and twenty-five miles to the State line at the extreme north. Westward the ancient city of Quebec is a scant hundred miles distant, while the Canadian border is only twenty-six miles away. For great distances on every side, save the south, is virgin forest, gemmed with lakes, interlaced with streams, and buttressed by mountains.

Moosehead Lake is, therefore, ideally situated for a summer resort. Every breeze is tempered by leagues of forest, mountain and broad expanses of water. It is never hot at Kineo, and hay fever is unknown.

Mount Kineo, from which this region is named, rises majestically from Moosehead's eastern shore, forming a peninsula that nearly divides the lake in two. On the north the mountain, a solid mass of flint, presents a sheer precipice nearly eight hundred feet high, while the opposite side slopes gradually to the water's edge.

The general formation of Mount Kineo resembles the back of a huge animal emerging from the lake. Indian legend has it that the mountain is in truth the petrified remains of a leviathan sent to earth by the Great Spirit to punish them for sin, and in studying the mountain formation in conjunction with the formation of the lake, one will see that it does resemble a monster moose, which without doubt was and is known as the giant of the Maine forests.

On the southerly extremity of the peninsula stands the New Mount Kineo House, surrounded by water on three sides. It faces the most beautiful part of Moosehead and from its broad piazzas one obtains an uninterrupted view of lake and mountains. The finely appointed hotel of today is the result of nearly seventy years' evolution during which time Kineo has increased in reputation and popularity. From the early days of 1844 until now, by constant improvement, Kineo has grown from a mere fishing and shooting camp in the forest, primitive in convenience and difficult of access, to the present beautiful estate, which forms a part of the in appointments, acknowledged to be achievement, and to the new hotel, rich one of the most luxurious summer hostelries.

When the visiting officials feel the need of something to open wide the pipes of their lungs they will find a chance at their very elbows to go mountain climbing over rugged paths. Or if this is not severe enough they can take pathless routes over the granite hills.

The anglers in the party can try their skill if they choose, for fish are plentiful and ready to rise to the cast of the cunning angler. In short there will be plenty of opportunity at Kineo to work in a little out-of-door pleasure with the serious labors of the convention.



HON. JAMES WILSON,
Ex-Secretary of Agriculture.

WILSON MADE DOCTOR OF LAWS.

The honorary degree of doctor of laws was conferred by the University of Edinburgh on James Wilson, former Secretary of Agriculture of the United States. At the same time the degree of doctor of sciences was conferred on a woman for the first time in the history of the university.



The Wholesale Grocers Convention



HELD AT THE MARLBOROUGH-BLENHEIM
—ATLANTIC CITY, JUNE 4, 5 AND 6

THE convention opened only a few minutes later than the scheduled hour of 10:30. President George E. Lichty, of Waterloo, Ia., called to order and a brief but impressive invocation was offered by Rev. Birney S. Hudson, of Atlantic City.

The official address of welcome was extended by Mayor William Riddle, and was responded to in behalf of the association by Mr. O. J. Moore of Sioux City.

President Lichty then appointed the committees for the convention as follows:

THE CONVENTION COMMITTEES.

Resolutions—A. M. Wilson, of Hartford, Conn., chairman; Robert J. Roulston, Chicago; D. C. Shawe, Pittsburg; D. T. Ackerly, New York; J. W. Bragdon, Minneapolis; Charles Hatfield, Denver; B. B. Cushman, Detroit; O. J. Moore, Sioux City, Ia.; C. T. Wilson, Buffalo.

Credentials—D. H. Crocker, Wilkes-Barre, Pa.; O. B. Rowe, Oneonta, N. Y.; W. C. Marshall, Shreveport, La.; Chas. Feilbach, Toledo; E. L. Adams, Atlanta, Ga.; Geo. Laninger, San Francisco; Chas. McLaughlin, Portland, Me.

Press—Howard Humphreys, Bloomington, Ill.; W. C. McConaughey, Parkersburg, W. Va.; A. M. Shott, Pittsburg; A. M. Nally, Austin, Tex.; D. T. Ackerly, New York; Harry K. Huntson, Stillwater, Minn.; W. O. Moore, Indianapolis.

THE AFTERNOON SESSION.

Program—George B. Wason, Boston; Fred R. Drake, Easton, Pa.; E. M. Ridenour, Kansas City.

Auditing—J. E. Moore, Atchison, Kansas; C. E. Hanscomb, Boston; T. F. Branham, Eau Clair, Wis.

Arrangements—R. E. Hills, Delaware, O.; Warren Goddard, St. Louis; Mr. Klauber, of Klauber, Wangenheimer, San Diego, Cal.; Butler Reeves, Philadelphia.

A communication was received from Second Vice-President P. C. Brescher, of California, who is at present in Germany, extending the convention the warmest greetings. Another message of greeting was cabled by the National Wholesale Grocers' Association, of Germany, which is now in session.

The nominating committee was not appointed, but will be composed of one member from each state. During the noon recess the several state delegations were in session choosing members to represent them in the work of selecting officers for the coming year.

Officers and committees reported on the work of the association during the past.

The first event of the afternoon session was the annual address of President Lichty, which was received with marked enthusiasm and frequently applauded. It will be found printed in substance in another column. At the conclusion of his address President Lichty extended the usual welcome to manufacturers' representatives to address the convention, but few availed themselves of the opportunity. Fred Mason, general manager of the Shredded Wheat Company, of Niagara Falls, was the first one called on.

FRED MASON'S ADDRESS.

Mr. Mason is perhaps the best known man in the grocery trade of the country, and was cordially received. From his wide experience in every branch of the trade his remarks were of more than usual significance.

Mr. Mason declared his firm belief in such conventions as this as promoting good business work and good-fellowship. He said that he disagreed with much of the talk about the day of the middleman rapidly passing and expressed his opinion that instead of his work being over, it was only beginning. The value of the jobber and his necessity are being appreciated more and more every day by an increasingly large proportion of the manufacturers, he thought as high as 99 per cent today. There was good economical reason for the jobbers' influence, he said. In the case of his own company he pointed out that without the jobber and his warehouse in every community the company would be obliged to pay storage of 2 cents a month per case on goods, employ 4,000 more bookkeepers and carry the credits of from 200,000 to 400,000 retail grocers on its books. It is actual economy for the manufacturer, the retailer and the consumer to have the jobber do all this work. There is no need for the jobber to blush for his existence, he said. The public today gets better service through 2,500 jobbers than would be possible on any other basis. Eliminating the middleman would actually raise the cost of goods to the consumer. It may be all right to talk about the high cost of living, said Mr Mason, but no one in these days wants to return to the oil lamp and the candle because the electric light costs more. Eliminating middlemen is a one-sided idea. The modern system, which finds a place for the wholesaler, the retailer and the specialty manufacturer has solved the problem of economy with service, and so long as the public wants it the jobber is not going to suffer elimination.

Other brief addresses of similar tone were made by Geo. Nowland, of Fels & Co., Philadelphia; John E. Linihan, of the United Cereal Mills Company, Chicago, and George H. Carter, of D. & L. Slade, Boston, president of the New England Association of Manufacturers' Representatives.

THE OFFICERS REPORT.

The reports of the five vice presidents were next in order, that of First Vice President McConaughey will be found printed in abstract elsewhere, containing much sound advice as to the true economy of the jobber in the scheme of national distribution. The absence of Second Vice President Dresher in Europe made it necessary to omit his report and that of Third Vice President Robert G. Bursk, of Philadelphia, was omitted owing to Mr. Bursk's illness and absence from the sessions.

Fourth Vice President Robert J. Roulton, of Chicago, made a brief report and offered a resolution of regret at the absence and illness of Mr. Bursk.

It was voted to have the reports of the president and vice presidents printed and copies sent to every wholesale grocer, manufacturer and member of Congress.

The report of the treasurer, Andrew H. Wellington, of New York, was the occasion of much enthusiasm, the association being in finer financial condition than ever before, largely because of the fine work done by the late F. W. Hanna as chairman of the Ways and Means Committee. It appeared that at the opening of the year the balance had been $11,268.54, receipts from dues $49,059.21, and from interest $678.83, a total of receipts of $61,006.58, from which there has been expended $41,138.80, leaving a balance of $19,871.78 on the first of June.

Mr. Wellington supplemented this report with a brief address, in which he said some pertinent things about the critics of the wholesale grocer. Among other things, he said:

MR. WELLINGTON'S ADDRESS.

"It seems to me that for some time past our work has been largely defensive, and it may be that it will be for some time to come. We must carry on an educational campaign, and money as well as men must be available.

"The wholesale grocer has been placed in a trying and anomolous position for the past few years—trying, because while our business is arduous and exacting, with small compensations for the work done—anomolous, because while we are engaged in an honorable calling, and have in our ranks as high a class of citizens as can be found in any calling, we seem to have been especially chosen as the subject of unjust attacks and calumny.

"Everyone who has intelligently investigated the subject knows that the majority of the people of this country, from end to end, have become more and more liberal in their manner of living—in food, in dress, in their homes, in their pleasures, in every material thing that makes life attractive, and in doing this most people seem to have forgotten that old adage of cutting ones' garment according to one's cloth. Liberality has become extravagance. What one would like to have has become equivalent to what one must have. The logical result of this means for the greater number serious embarrassment if not ruin.

"When the natural result of this extravagance became apparent, instead of applying the natural remedy of retrenchment, almost with one accord the people looked for a scapegoat—they wanted to put it on the other fellow. With this feeling rife, and clinging to the de-

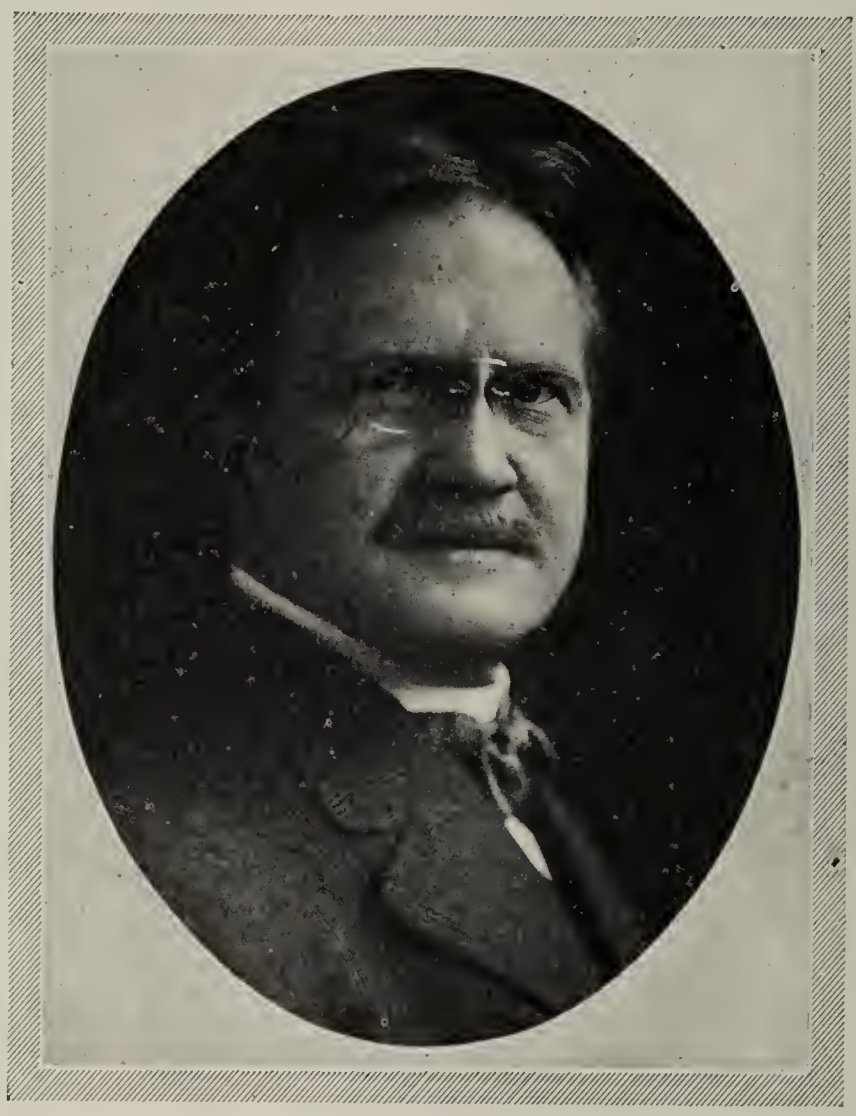
sire to still live beyond their means, they settled on the distributors of food as the most convenient for attack, the "easy mark" theorists without knowledge and wild-eyed demagogues helped them along and all too easily confirmed them in the assertion that they were victims of fraud and extortion rather than victims of their own folly.

"I feel assured that some day the error and injustice of this will be apparent—in fact, the first glimmer of reason and fairness seems to be apparent—but in the meantime a campaign of education must be carried on, and this association must do the work for those in our line of business. We must go ahead with renewed vigor and determination.

"The day of the jobbing grocer, unlike the jobber in other lines, has not passed away because there are peculiar conditions that pertain to business. The source of supply for the household must be near at hand, a supply that must be frequently replenished and individual purchases small. The neighborhood store must continue to be the main source of supply to the consumer, the wholesaler, because of the great variety of products required, must ever be the main source upon which retailer will draw, all assertions to the contrary notwithstanding. Present conditions are partly the result of unscientific methods of business, which are being rectified largely through the efforts of the association, and partly through misunderstanding on the part of the public, aggravated by misrepresentation, which the association will correct."

REPORTS OF SECRETARY AND COUNSEL.

The report of Secretary Beckmann and that of the counsel, Breed, Abbott and Morgan (presented by Association Counsel Dana T. Ackerly), were presented and received with much enthusiasm. The clever combination of legal lore, judicial criticism and dry humor of the counsels' report created much merriment and brought great applause. Both these reports will be found printed below.



OSCAR B. McGLASSON,
New President of the National Wholesale Grocers' Association.

GOVERNOR FERNALDS' ADDRESS.

The immense progress in methods of feeding a great nation efficiently.

The closing address of the afternoon session was that of Hon. Bert M. Fernald, former Governor of Maine and president of the National Canners' Association.

Mr. Fernald congratulated the association on its record of useful work; work which, he said, would rise to the dignity of diplomacy if it was in the realm of statecraft; good fellowship in social life, but which he designated in the parlance of old-fashioned, hard-headed business men as "common sense" ideals of merchandizing.

All branches of trade, he felt, should work together for the common good. It was a work of almost unbelievable magnitude; this task of feeding a nation of 100,000,000 people through only 2,500 wholesale grocers. The wholesaler, he said, stands midway between the farmer and producer on one side, and millions of consumers on the other, a system so complex in its greatness as to be almost inconceivable, yet so simple in its effectiveness as to be even more astounding. The grocer supplies from his store everything imaginable in the line of food, the salmon and fruits of the Pacific, the corn from Maine and the products of the far north and the torrid south. The speaker doubted if the grocers themselves fully appreciated the significance of their position in the national scheme of life. And the wonder of it all is that in a brief 25 or 50 years the whole trend and scope of public food demand has been revolutionized. He recalled the poor, few paltry staples which his father sold in the little country grocery and contrasted it with the hundreds of choice packages now exhibited on the shelves of every grocery store.

The grocer has completely elevated the tone of American life, and one direct result is the statistical showing that because of better food and better living conditions the average of American life has been extended 10⅓ years. There never was such good health, such ambition, such activity and such intelligence and good fellowship as we have to-day. It may be all right, he said, to talk of the high cost of living, but comparing quality and accessibility of food with other elements there was never a time in the history of man when good food in cans was so stable or so cheap. Nor is it all at home that the benefits have come, for we export today a hundred times as much food in cans as we did eighteen years ago. Yet all this is done with a matter of 4,000 canners in the land.

Mr. Fernald contrasted the conditions in the trade now with that of seven years ago, when the association was formed, and pointed out how competition had been preserved, yet the competitors made to know and respect one another, like parts of a great family. And now with the growth of other associations of canners and manufacturers the friendliness has been extended and are working together for a common end of prosperity.

Both canners and grocers have had a part in the great work of spreading the fame of canned goods. They had spent a matter of perhaps $30,000, but that was a mere trifle compared with what they hoped to spend in the future efforts. The canners will put up dollar for dollar what the grocers do, he said, and together they will give canned goods a new era of demand among discriminating consumers. He urged every jobber to meet with the canners at their next annual convention in Baltimore and promised every one a glad hand. Together, he was sure that the canners and jobbers can make tremendous advances in the future interests of both.

At the close of Mr. Fernald's address William Silver, of Aberdeen, Md., a prominent officer of the National Canners' Association, extended the official invitation of the association to the wholesale grocers to attend the National Canners' convention at Baltimore in February.

In the evening the delegates participated in an informal reception and ball at the Marlborough-Blenheim Hotel.

One feature of the evening was a dinner to a number of the members tendered by E. L. Bradford, of the Corn Products Refining Co.

The address of President Lichty was the feature of the afternoon session. Mr. Lichty congratulated the members on securing the passage of the net weight and measure law, which he said was criticised by mercenary interests and others ignorant of its interest.

HEARD IN THE GROCERY STORE.

"Ma wants two pounds of butter exactly like what you sent us last. If it ain't exactly like that she won't take it," said the small boy.

The grocer turned to his numerous customers and remarked blandly: "Some people in my business don't like particular customers, but I delight to serve them."

"Be sure and get the same kind," said the small boy, while the storeful of customers listened to him. "A lot of pa's relations are visiting our house and ma doesn't want 'em to come again."—Newark Star.



The President's Annual Address



By George E. Lichty
of Waterloo, Iowa

"MUCH has been said of the eliminaton of the wholesale grocer," said Mr. Lichty. "Several years ago a slight feeling of alarm was lurking in my mind as to our permanency. Today I am more than ever convinced that the great system of distribution as it now exists is right and economical. The masterful American mind has evolved the principle. The great national energy has perfected it, and, gentlemen, the time will never come if we do those things that are right and just when the manufacturer will go past the wholesale grocer to distribute his product.

"Personal contact has taught me that the retailer does not wish nor expect to see that period. You are the great merchandise bankers of the nation. You issue credit and send merchandise into localities surrounded by conditions where financial bankers, the keepers of the public funds, cannot venture. In this country there are practically 2,500 exclusive wholesale grocers handling a distribution of several billions of dollars annually, carrying a constant book account alone of more than 750 millions of dollars. Can you imagine manufacturers who would care to furnish the money, the storage, the organization and the credit department that would undertake to supplant you?

"To continue in the business we must recognize that fair and reasonable profits are necessary. Extravagant distribution must be eliminated, expenses kept to the minimum, co-operation and enthusiasm extended to the maximum. If we do these things the time will never come when the wholesale grocer will be supplanted or be a useless ornament to the business of this nation. As wholesale grocers, we have a very great duty to perform and severe responsibility rests upon us.

THE RISING GENERATION.

"Think of the great army of bright, intelligent young men that are being employed and educated to be salesmen, department men, managers and eventually the principals and our successors. We must give to this army the very best that there is in us, starting with honesty, industry, sobriety and application. The office boy of today is the salesman of tomorrow. The salesman soon becomes the assistant and in a very few years the manager and possibly the owner. I have often wondered whether we appreciated the responsibility that rests upon us in the development of the young men. I say 'young men,' for I am a firm believer in the tendency of the times, and the inclination of nearly every successful institution is to find the bright and energetic boy who is ambitious, intelligent and enthusiastic and to educate him along the lines of our individual ideas.

"In addition to this personal responsivility there are national ideas that we might encourage: We should assist in the development of the Chamber of Commerce of America. We should inform ourselves as to the commerce of the country and to be active in diffusing the same. We should be active in the promotion of American trade throughout the world and the advancement of the cause of carrying our commerce in American ships flying the American flag.

"When requested by the National Congress to do so, all the assistance at our command should be used to promote legislation governing food distribution, domestic and foreign, so that in our commercial affairs we may assist in developing that important branch of the commerce of nation. We should encourage the education of the public in the practical use of the metric system and assist the government in promoting its early adoption.

A LAW-ABIDING ASSOCIATION.

"From the date of organization you have gradually grown and prospered, and during all this period no action has ever been taken, directly or indirectly, with a thought of controlling prices or in any manner whatever operating in restraint of trade. On the contrary, our exclusive purpose has been education: to familiarize ourselves with trade conditions, discuss rules and regulations and inform each other as to the cost of doing business. Conservation of our energies and to minimize losses of every kind and description are our objects. This is an age of technical education.

"It is necesary that we should be just as expert in our work as the mechanic, the engineer, the educator, or any other worker, whether mechanical, commercial or professional. With that assumption, we should continue to inform each other and thereby render greater service to the public.

"This association is positively and without equivocation committed to pure food, honest weights and full measurements, notwithstanding the spiteful criticisms of those who have assisted in detaining legislation and in putting every obstacle imaginable in the way of legitimate progress. We must continue to support food laws and regulations and to use our best efforts to have state and national laws harmonious. We should lend our untiring efforts and experience in assisting the department at Washington to successfully interpret the weight and measure legislation, and it is incumbent on every member of this organization to work for legislation in the various states that will make state law uniform with the national law. As a word of warning I wish to say that the wholesale grocer who does not take enough interest in securing legislation along these lines is doing much to put himself, his state and his nation out of business.

THE CO-OPERATIVE SPIRIT.

"It is a pleasure to welcome the officers of all of the kindred organizations that are present at this convention. We are also pleased to have with us so many manufacturers, canners, brokers and their representatives. The oftener that we come in personal contact with each other the better we become acquainted and the easier it is for us to do business and lay aside our differences. Frequent assembling in mass conventions of this kind has much to do with putting us all on the same level, enjoying each other's pleasures and sympathizing one with another in affliction and distress. Every session of this convention is open to any person who desires to enter. The past several years have been working wonders in association work. If this great progress continues it will only be a very short time when the troubles and misunderstandings will have entirely disappeared."

The greater part of President Lichty's address was given to a detailed analysis of the association's activities during the past year. In part, he said:

"In making appointments it was my purpose to keep in mind the various localities, the importance of markets and, above all, the ability and enthusiasm of those selected for the various committee appointments, and we have tried to bring into the committee new material.

"As far as possible in selecting the chairmen of the different committees we have made our appointments from the executive committee and of those members who are familiar with association work, and at the same time giving to those now in committee work all of the advantages possible in association training.

PURE FOOD CAMPAIGNS.

"Early in my administration it became apparent that the pure food and legislative committee would have a year of unusual activity, which finally developed into a record breaker. Forty-three state legislatures have been in session at one time or another during the year, and you will also be interested to note that in a number of cases a single state had two different sessions in that period and in one instance three sessions.

"You are to be congratulated in securing the passage of the net weight and measure law. This has been under consideration for more than two years. During the past year, we have had requests from several state associations to the effect that our legislative committee and counsel assist in local legislation. In every instance, we have thought best not to become active along those lines; the individual experience of a number of the executive committee having taught us that state legislatures resent outside interference.

"The gospel of arbitration as advanced by the arbitration committee and particularly by its chairman, is becoming popular. During the past year there have been more successful and satisfactory arbitrations than during all others. A set of rules for arbitrations has been issued and as time goes on this work will become more effective.

"The work of the purchase discount committee has been carried on with great success. Numerous manufacturers have announced increased discounts, and

others will follow in the near future. The wholesale grocers themselves are more responsible for delayed uniformity in this particular field than all other conditions combined. Purchase discount terms must be respected or manufacturers will cease to offer inducements for promptness. At every opportunity, during the past year, we have defined what discount terms mean and stand for. We believe discount terms to be a banking proposition pure and simple. Discounts are granted for the reciprocal advantages of prompt cash payment if made within a given time. We take advantage of these terms and pay within the given discount period. If not convenient to do so, payment should be made at maturity and without discount.

"From its inception, and during the administrative year from June 1, 1910, to June 1, 1911, this association passed through a crucial financial existence, but under the splendid management of ex-President Drake and with that able assistant, the late and lamented Frederick W. Hannahs, who was the chairman of the ways and means committee, it was placed on a sound financial basis. My predecessor, President Wason, so successfully managed and economized that he turned over to the present administration more than ten thousand dollars ($10,000). On account of that respectable balance, the present ways and means committee has not been active.

A CAMPAIGN OF EDUCATION.

"It is my opinion that in the future the work of this association will be largely of an educational nature, and therefore I believe that one of the committees that in the past has not had its fair share of importance must necessarily become active and educational in its work. I refer to the publicity committee. There's a time coming when this committee should have the authority to give to the public through the press reliable information in connection with the manufacture, distribution and consumption of foods of all kinds and thereby dispel the sensational and unreliable public utterances and writings that are being promulgated without thought of truth or consequence.

"The assistance that was rendered to the canned foods publicity week enterprise by one of our special committees must not be passed unnoticed. To that work and through that committee you sent your individual contributions in excess of $13,000. From casual observation, as well as personal contact with the wholesale grocers and canners, it occurs to me there should be a week set aside annually for exploiting the use and consumption of canned foods of every kind and description.

"The canners' conference committee was selected before the adjournment of our convention at St. Louis. President Haserot of the National Canners' Association likewise appointed a committee of three, and this committee has jointly established a standard of weights and measures for canned goods of all kinds and descriptions that has been accepted by the department at Washington. It has adjusted and dispelled misunderstandings that have heretofore existed, and better feeling and greater harmony prevails between our respective organizations than ever before.

"Under date of April 1 a circular letter was addressed to you suggesting a permanent committee of the association, known as the 'advisory committee" and consisting of all the ex-presidents of the association. The purpose of this is to give to the president and at his command the services and experience of all ex-presidents, so that in the absence of any of the executive committee the president may call on a member of the advisory committee to serve in the absentee's place. I sincerely urge that you adopt the proposed amendments.



GEORGE E. LICHTY,
President National Wholesale Grocers' Association, 1912-13.

KEEPING THE PRESIDENT BUSY.

"During the past year your president has traveled more than 50,000 miles. He has been from coast to coast and from the Gulf of Mexico to the Canadian border. It was necessary to make six or seven trips to New York so as to be in touch with the secretary's office. It has been my pleasure to attend and address the American Specialty Manufacturers' Association in annual convention in Chicago in November; the National Canners' Association and the National Canned Goods and Dried Fruit Brokers' Association in Louisville in the month of February, and the National Association of Retail Grocers of the United States in St. Louis in May. I have also attended the annual meetings of the Philadelphia and Chicago auxiliaries of the American Specialty Manufacturers' Association. I met with the wholesale grocers of Minneapolis and St. Paul and vicinity in September. Early in the month of October, similar meetings were held in Duluth, Minnesota, and Spokane, Washington. Several days later, at Seattle, I met with the members of the Western Washington Organization, and the following day with the Oregon Association at Portland. An invitation from the California Wholesale Grocers' Association at Portland was accepted, and your president met with them in a three days' session at beautiful Del Monte, where practically every wholesale grocer in the state of California was present. The following week I met with the Wholesale Grocers' Association of Los Angeles. The return from the coast was via Galveston, Houston, San Antonio, Dallas and Fort Worth, Texas, where the jobbers of each of these cities were met and association affairs discussed. At Kansas City an enthusiastic meeting was held with practically every jobber present. In the month of March I met with the Wholesale Grocers' Association of Pennsylvania, New Jersey and Delaware, at Wilmington, Delaware, and delivered an address at their banquet. In April I accepted an invitation to be present at Indianapolis, where the Indiana State Association held its annual meeting, and spoke at their banquet. In early May I was present at the annual meeting of the Iowa-Nebraska Association. All of these meetings were enthusiastic, showing without exception that the spirit of organization is rife and that your organization is recognized as the leader in association work.

"Reiterating the suggestion of several of my predecessors, I wish to caution and to urge you to be charitable in your correspondence. Do not write vitriolic letters and assail the honesty and integrity of those with whom you are doing business. When manufacturers and others announce a concession of any kind or description, such as an increase in cash discount, better terms or datings, do not hesitate to write letters and express your appreciation. Several hundred messages of this nature will tend to create a better sentiment between buyer and seller.

"I am glad that I am a wholesale grocer and proud to be a member of our organization, and I appreciate the honor to have served as the president and servant of your affairs for the year about to close. I have given, at the sacrifice of personal affairs, my earnest effort and thought, and in return appreciate the loyal response that has been given to me. This has been the greatest honor of my life and I feel that it is the greatest honor that can come to any wholesale grocer."



The Second Day—Thursday, June 5



REPORT OF THE FIRST VICE-PRESIDENT
REPORT OF THE FIFTH VICE-PRESIDENT
ADDRESS OF JOHN E. LINIHAN
ADDRESS OF SOL WESTERFELD
COMMITTEE REPORTS
ADDRESS OF JOHN A. GREEN
REPORT OF THE SECRETARY

THE first address of the day was that of Dr. Carl Alsberg, chief of the Bureau of Chemistry at Washington and head of the Fure Food Inspection Board. The policies outlined by Dr. Alsberg indicated a spirit of helpfulness which was encouraging, and in his view of the part of grocers have in feeding the nation, he displayed an attitude in marked contract with the severely critical stand so frequently heard from his predecessor. His address will be found printed elsewhere.

THE METRIC SYSTEM.

An address which indicated perhaps as strongly as anything the progressive spirit of the association was that of Dr. S. Stratton's, at Washington, on the subject of the metric system. which the association is strongly urging for practical adoption.

Dr. Stratton's address was rather an exemplification of the metric system and a narration of its history in other countries. He congratulated the association on being the pioneer of great mercantile organizations to seriously arouse interest in the adoption of the decimal system of weighing and measuring: the very first, he said, outside of scientific bodies to take an interest in the topic. By the use of charts and actual measures, he carried his audience through the whole scheme of metric measuring and indicated that its simplicity was such as to make it comprehensible to a child or the simplest artisan. He encouraged the association in the belief that its campaign of education was bound to bear fruit ultimately and assured the grocers of his co-operation and assistance.

GREETINGS OF OTHER ASSOCIATIONS.

Other formal addresses of the day were those of President John E. Linihan of the American Specialty Manufacturers' Association, and Sol Westervelt, officially representing President Schwab of the National Retail Grocers' Association. Both indicated a marked friendliness toward the jobber and conceded all the essentials which underlie the jobbers' position in the chain of merchandising, though both were not sparing of a frank criticism of some of the trials they sometimes encounter at the hands of the wholesalers. Both addresses will be found printed elsewhere.

President Harry Wheeler of the Chamber of Commerce of the United States was expected to address the convention, but was absent and sent instead a cordial letter of greeting and regret.

Perhaps none of the reports was quite as full of satisfaction as that of the committee on pure food and legislation, which was fuller of accomplishments than ever, owing largely to the fact that all but five of the state legislatures have been working overtime this year on food laws of none too wise design. The other addresses were full of interest, though necessarily somewhat technical. They will be found in abstract in other columns of the paper. There were no departures from the general program as already printed, save that a few representatives of visiting organizations were heard.

THE CANNERS' CO-OPERATION.

Harry P. Dimond of the California Fruit Canners' Association extended to the association the congratulations of his organization and thanked it for its efforts to bring about a better understanding in the matter of a dried fruit contract. He assured the organization of his co-operation in the extension of all such measures as will render more agreeable and satisfactory the relations between the grocers and the packers and canners of his district.

Dr. W. D. Bigelow, who has recently resigned from the position of chief chemist of the Department of Agriculture to become chief of the National Canners' Association research bureau, outlined the immense work which has been done in improving the character of canned goods. The establishment of such work as his, he said, would have been impossible a few years ago, but now the time is ripe and the trade and the government are in harmonious frame of mind for the attainment of common ideals. Confidence has been established and a mutual desire to arrive at the exact truth is abroad among all food handlers. With that desire uppermost, he expressed the belief that a long step forward in the solution of food problems has been taken.

THE BANQUET.

The banquet, officially held under the auspices of the association in the large dining hall of the Marlborough-Blenheim, was attended by over 400 guests. Former President Fred R. Drake acted as toastmaster and the speakers were Francis Hutchings of New York, Rev. Wm. Quay Roselle of Philadelphia, Hon. Edwin F. Sweet, first assistant secretary of commerce, and Congressman J. Harry Covington of Maryland, who is regarded by the grocers as the father of the Gould net weight amendment to the pure food law.

Report of the First Vice-President

BY W. G. MCCONAUGHEY

"THOSE of you who have followed the work of this organization from its inception to the present cannot fail to feel proud of what has been accomplished," said W. C. McConaughey, in making his report as first vice president of the National Wholesale Grocers' Association, today. "In this wonderful country of ours things are done at a pace and on a scale the magnitude of which dazes the civilized world. Through all the turmoil and struggle of this organic world there is an unceasing swing of nature's pendulum which forces upon us with regularity the recognition of that natural law—'the fittest will survive,' whether it be the theory, the principle or the man.

"Almost a century and a half ago the world's greatest political economist, Adam Smith, again proclaimed that theory which had been advanced by the wise men of all ages that 'wealth could only be produced by labor,' and that capital was destined only for the maintenance of productive labor. To this end capital could be employed in four different ways: First, in procuring or producing raw material, in which capacity may be found the farmer, the miner, etc. Second, in preparing that raw material for consumption. Here we find our manufacturers, canners, packers, etc. Third, in assembling the crude or manufactured products from the places where they are produced or manufactured to where they are wanted for consumption. This is the work of the wholesale dealer. Fourth, in dividing those materials or manufactured products into such quantities or small parcels as suit the demands of the consumer, which is the occupation of our co-workers, the retail merchants.

"Smith makes the statement that 'each of these four methods of employing capital is essentially necessary to the existence of the other three.' This is supported by the crucial test of practical experience. The fact that this system still exists today proves that no better or more economical method of reaching the consumer has been found. And, following the unanswerable logic of this economist, we find that this system can only be changed by governmental interference.

"In this natural system the wholesale grocer occupies the position of the third link in this chain: viz, that of an assembler of manufactured products at points where they are wanted for division and consumption, and this work is today as

distinct an occupation as that of the farmer, the mechanic or the physician.

"There is perhaps no question more frequently asked of the members of this association than the one 'what are the objects of your association? What benefits are derived, etc?' All of which would seem to imply that in addition to the objects as set forth in the preamble to our constitution there is some secret work that is only disclosed to the initiated—secret only to those who will not see. It would further indicate that they are either ignorant of the great work already accomplished along legitimate lines, and which should be known and felt by every jobber in this country, or that in hiding behind this question they are willing to participate in the fruit of your co-operative work without in any way contributing to the cause. That there is a field for this organized effort is known to every thinking jobber in the land.

"With the advance of civilization, leavened by the doctrine of 'The Golden Rule,' force has been largely supplanted by justice in the arbitrament of national disputes and commerce needs neither the 'banner of the Red Cross' nor the sword for its protection. In this evolution that is constantly going on in all lines around us, it must not be supposed that the field in which we are engaged has escaped invasion. For instance, the marvelous development of the canned goods industry as made it necessary that the packer of fruits and vegetables shall know by contract the approximate requirements of his distributers in order that a proper proportionate acreage of each item may be provided for long before the frost shall have left the ground upon which the fruit will be grown.

"Hundreds of articles that formerly were unknown to the general trade because of their perishable nature; and still hundreds of others which a few years ago were bought and sold in bulk and in respect to which the merchant was absolute master of quantity, quality and price, are today by reason of the demands of sanitation, hygiene and convenience, packed in containers to be sold at popular prices. In the preparation and packing of those containers provision must be made by the manufacturers for the cost of distribution, and, therefore, a remuneration is provided for the services of the jobber which pays him a margin above the actual cost of doing the work, and the approach of that margin to the line of demarkation between profit and loss, brought about by competition, makes it a matter of no moment to the consumer whether the jobbers retain it or give it away.

"The giving away of all or a portion of that margin by any jobbers may prove a much more serious matter to the manufacturer, who finds that his other distributers are turning their attention to more profitable items and take no interest whatever in an article which has cost him perhaps a fortune to introduce. An agreement between merchants to retain that compensation so provided on articles of this character is in violation of law. The right of a manufacturer to require it is being contested in our courts at this time. But the natural unchallenged law of self-preservation gives every individual the right to demand a just and fair remuneration for his service and to refuse to labor where it is withheld or destroyed. Whatever may be the final interpretation of the law by the courts so far as the rights of the manufacturer are concerned, that decision will be welcomed and most religiously observed by every member of this organization insofar as he may be affected.

"But while the question is pending there is a rule of action that needs no interpretation—that 'if we are but just and true to ourselves we cannot be false to any man.' We owe something to ourselves and to each other, and especially to those whose comfort and happiness depend upon our honest efforts, and we may press forward knowing that our inalienable rights—commercial, social and moral—will be most zealously guarded by the courts of this land."

Report of the Fifth Vice-President

By A. M. Wilson

"I WISH to read you the fifth object of Article II of our constitution, 'to have business conducted on legitimate lines, discourage deals, schemes and the subsidizing of jobbers' employes by manufacturers,'" he said.

"While it would be possible to write a book on this as a whole, I want to call your attention at this time particularly to the subsidizing of salesmen. We are on record as opposed to this. We have affirmed and reaffirmed it at every meeting. We have been successful in getting many manufacturers to stop, but it is still being done to a more or less extent, sometimes openly, again secretly. In some state this is illegal, but it does not seem to me that we, as business men, need a law to have every one of us tell the manufacturer or anyone else not to try to buy or bribe our salesmen.

"I have had occasion several times in the past year to take this up with manufacturers, and I have been greatly surprised to find them supplied with the names of the salesmen of some of our best firms and in some instances the names of members of the firm themselves on the list.

"Now, gentlemen, why do some of you continue to do it? I believe it is because you do not stop to consider, or that you have not fully informed all your office men that you will not stand for it, and nothing is more demoralizing, nothing leads so quickly to price cutting. A salesman himself should be above this. He should not lower himself to accept graft or tips from the manufacturer. He is insulting his intelligence when he attempts to. As to the manufacturer, I believe one who does this should be watched as close as a man who tries to bribe a juror; there must be something wrong with his goods. I believe an article should be bought and sold on its merit, for its quality and for value received. It should not need premium stamps to smoothe over the consumer, it should not need an extra coupon or extra case to get it on to the retailer's shelves, nor should it need a prize hung up in the distance to induce salesmen to sell same.

THE "SQUARE DEAL."

"I would say a word as to conducting business along legitimate lines. A few years ago the idea of 'a square deal'—and no better slogan was ever used in business—was the talk of the country; today it is 'free competition and restraint of trade.' A large percentage of our business is in proprietary articles for which we simply act as distributors, and if we obtain regular prices barely get back the cost of doing business. It is acknowledged that we are the cheapest medium through which the manufacturer can distribute. This line of goods is increasing. The manufacturer creates a demand by advertising: why should he not, acting independently, be allowed to protect his distributors from the unfair competitor whose only desire is to use the manufacturer's advertising in order to sell some other line? I believe this desire to be restraint of trade of the worst character. By this plan one firm in a locality not only restrains honest men from carrying on legitimate business, but often brings disaster and bankruptcy not only to themselves but others.

"We are a great people and the masses are easily led by agitators and politicians who make a play to the gallery in order to retain their jobs. 'Free competition' and 'restraint of trade' seem to be the popular cry with them today and appear in the largest type of cheap journalism, but I firmly believe, in the near future there will be a stronger demand to restrain or control the price-cutter and demoralizer.

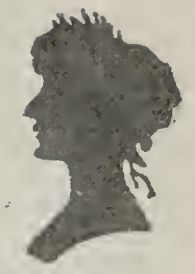
THE NEW COMPETITION.

"I believe competition in our line today is largely made up of service and quality and that it is not good business either for ourselves or the country in general to sell any line of goods for less than cost plus the cost of handling same. No self-respecting wholesaler should work for nothing. No man can continue long to do businses at a loss and it is not good business to sell one line at a loss and try to make it up by charging extra prices on some other.

"We are living in an age when it seems to be the policy to try to knock 'the other fellow.' Let us try to be above this, let us be an example; instead of knocking say a kind word, make business easier and more honorable. Be honest to yourself and your business; be honest to your trade and you will be honest to your competitor."



Address of John E. Linihan



PRESIDENT OF THE AMERICAN SPECIALTY MANUFACTURERS ASSOCIATION.

"I BRING you the hearty greetings and good wishes of the American Specialty Manufacturers' Association, and congratulate you upon the splendid growth and solid achievements of your association.

"I wish to thank you personally, Mr. President, for the universal courtesy and fairness with which you have treated us during your term of office. You have placed all of your dealings and relations with the manufacturers upon such a high plane of fair dealing that you have strengthened and increased the high regard of the specialty manufacturers of this country for wholesale grocers and their association.

"Meetings like this, which bring together men engaged in similar lines of work and endeavor, cannot help being beneficial to all of us. Friendships are made here which will endure through life; influences are set at work which make us better men. We are brought to a realizing sense of the fact that there are many things in life worth while that cannot be weighed upon the scales of commerce, or measured by the yardstick of business—and that there are values not recorded by the dollar mark. It is only by knowing each other better, having a better understanding of the problems of others and sharing the tasks and trials of one another that we may expect to live up to the real measures of our destiny.

A VIRILE FIVE-YEAR-OLD.

"Our organization, the American Specialty Manufacturers' Association, is a youngster compared with the other organizations—being only five years old. While it does not in any way try to control or influence the individual business methods of its members, but leaves them free to pursue the policy which in each case may seem to the individual member best suited to his needs. The great majority of our members have found it to be to their interest to reach the ultimate consumer with their products through the avenue of the wholesale grocer to the retail grocer and from the retail grocer to the consumer. We have naturally, as good business men, tried to make our business as satisfactory, profitable and attractive to our associates in business—the wholesale and retail grocer—as possible.

"The specialty manufacturers, who are members of the American Specialty Manufacturers' Association, today represent several hundred million dollars in capital invested and the volume of business done by these manufacturers annually, no doubt, runs up well to the billion dollar mark. Millions in dollars are spent annually by specialty manufacturers for salesmen to sell their products to the retail grocers and in advertising to educate the consuming public to the merits and uses of their goods.

"We have, with the assistance of wholesale and retail grocers and the efforts put forth by our specialty sales organization and advertising, been able to create a very large volume of new business, from which the wholesale and retail grocer derive profits, which in the aggregate run into a very large amount in dollars.

"In this chain of distribution from manufacturer to wholesaler and from wholesaler to retailer, and from retailer to consumer, under the above system, there developed certain waste, loss and cause for dissatisfaction upon the part of the three factors involved in the transaction. I believe that one of the principal causes for this loss and this dissatisfaction was the specialty salesman. Unfortunately, a manufacturer was not always as careful in the selection of these salesmen as he should have been. Some of the results that followed were that retail grocers did not have the confidence in these specialty salesmen that they would have had had these salesmen always treated the retailer fairly and made only honest statements about the goods they were selling, terms of sale, prices, etc. This lack of confidence in specialty salesmen soon extended to wholesale grocers also, and it came to pass that wholesale grocers would not accept specialty orders taken by the manufacturers' salesmen for prompt delivery to retail grocers.

THE WASTE OF DISTRUST.

"These conditions resulted in loss and waste. First, to the manufacturer, who had paid out his good money to salesmen to secure these orders and had spent more money in educational advertising to create consumers for his goods, with the idea in mind that the goods would be available and easily purchasable by the consumer in the retail grocery store. Second, to wholesale and retail grocers who were being deprived of their profits upon what should have been, had conditions been right, desirable business. Third, and last, this loss was felt by the consumer because he is the one who must ultimately pay the charges upon these business transactions. This situation and these unhealthy conditions surrounding the specialty manufacturers' business was the fundamental reason for the organization of the American Specialty Manufacturers' Association some five years ago.

"What a change has been wrought in these short years by honest, earnest cooperation between specialty manufacturers, wholesale grocers and retail grocers. We believe that we have accomplished much along this line and that very greatly improved conditions prevail, and that the relations that exist between manufacturers, wholesale grocers and retail grocers are upon a very improved basis over what they were before the advent of our organization.

"While we manufacturers have not by any means arrived at perfection in the education of our salesmen, we are encouraged to believe that great progress has been made and that we are sending our salesmen out to call upon our retail customers better equipped than ever before. Our entire business organization has been improved and developed by the turning of the searchlight upon ourselves, and the honest attempt upon our part to put our own house in better order.

THE VALUE OF COURTESY.

"One of the cheapest commodities we deal with in business life is courtesy. We, none of us, can overvalue its results in our daily business dealing; we can make no other investment which costs us so little and brings us such large returns in dividends of satisfaction and good-will.

"We are, all of us, very much alike in our human qualities and appreciate courtesy and kindness, and resent discourtesy and unfriendliness. We believe it is a mistaken idea upon the part of any business man to think that he must surround himself in his business with an atmosphere which should only exist in a throne room or emanate from a refrigerating plant. We always feel sorry for a man of this type. It is very evident to any one of business experience that he is either an incorrigible grouch, or through this unpleasant bluff and rough exterior is trying to cover up a real weakness and lack of ability to squarely meet the issue.

"We all love the man with the kindly smile and courteous manner; the man with red blood in his veins and the milk of human kindness in his heart. This type of man is the one upon whom we instinctively bestow our favors—for whom to do as he wills becomes our pleasure. The most of us engaged in business life have enough of real troubles and cares without creating a brood of imaginary ones.

"Have any of you, my good wholesale grocer friends, ever had the pleasure of calling upon a specialty manufacturer with whom you do business and listened to him while he told you how much better he liked the business methods of one of your competitors, and that he preferred to have this other wholesale grocer sell his goods instead of you; that whenever possible he tried to sell the retailer direct, etc.? If you have, what were your feelings when you walked out of his office? Did you re-

solve to in the future sell more of his products and promise yourself that at the first opportunity you would send out letters to your salesmen requesting them to push the sale of this manufacturer's goods?

"Some of us specialty manufacturers have had the pleasure a few times in our business experience of sitting down near the desks of wholesale grocers, or their buyers, while they entertained us in an attempt to deprecate our efforts by telling us that they did not sell very many of our goods, as some of our competitors' goods were, in their opinion very much better, and very much better sellers, and that they rather liked the other fellow and his goods better. That they did not care very much about specialty business anyway; that there was not a sufficient profit in it. Also that they had similar goods to ours, put up under their own brand, and that they, of course, always tried to sell their own brand of goods first, and in fact were selling very much more of their own brand of goods than ours, etc. Human nature is very largely alike, whether a man is a specialty manufacturer or a wholesole grocer, and I will leave it to you how a man would naturally feel after an interview of this kind. We specialty manufacturers are just plain, ordinary, everyday human. We appreciate encouragement and evidences of indorsement while we are trying to do right, and will reciprocate a kindness or courtesy just as quickly as any other set of business men.

THE BLESSING OF ADVERTISING.

"We specialty manufacturers are spending large sums annually in advertising our goods, with the object in view of creating users of these goods, and staplizing them in the markets of the world. This advertising is creating an ever-increasing business, which is passing through your hands, and upon which you are making your profits. Take advantage of this creative business force; co-operate with this advertising.

"One of the greatest values and influences of advertising is its reflex action upon a company doing the advertising. A manufacturer and his organization, in order to make good on this advertising investment, must have better factories and better manufacturing methods, so that the goods produced will live up to the high standard set by the story told by the advertising. It has an unconscious influence upon every man in the business organization, as they all realize that it is up to them to do their part in such a way that they will be able to live up to the high standards of the firm as evidenced by the advertising. The salesmen feel the effect and are more alert in their work and more conscientious in the discharge of their duties.

"Regardless of the decision of the courts or the attitude of our lawmakers, you wholesale grocers have it in your power, by the exercise of common business sense, to do a great and good work toward the maintenance of fair prices and living profits in the grocery business. When we specialty manufacturers name a price at which we think our goods should be sold by the wholesaler to the retailer, in nine cases out of ten it is a fair, just and reasonable price giving the wholesale grocer only a margin of profit to which he is entitled in consideration of his investment in the goods, his credit risks, cost of delivery, overhead charges in doing business, etc.

"Cutting the price by wholesaler to retailer is, as a rule, induced by that unreasonable desire upon the part of certain wholesalers to do a greater volume of business by attempting to attract the business to their house, and away from other wholesalers, by the medium of price cutting. The results are always the same: Suspicion and distrust between wholesalers where honesty and harmony should prevail. Complaints by wholesalers that specialty business does not pay a living profit, when it would, in almost every instance, if the wholesaler had the courage to sell the goods at a price that would yield a fair margin for doing business. The manufacturer's goods are brought into ill favor and bad repute and no one is benefited. The remedy: Have more regard for the rights of others and more confidence in your fellow wholesale grocers.



JOHN E. LINIHAN,
President of the American Specialty Manufacturers' Association.

THE HIGH COST OF LIVING.

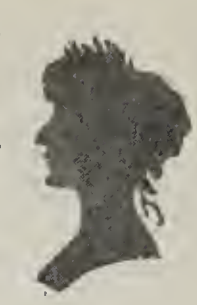
"We manufacturers, and you wholesale grocers, will not acknowledge or accept the blame or responsibility for what is called 'the high cost of living.' In my opinion, there is not a business today conducted upon a higher basis of efficiency than the specialty manufacturing and wholesale grocery business. Every effort is being put forth by manufacturers to increase efficiency in their factories and eliminate waste wherever possible. The same is true of the wholesale grocers of this country.

"There is nowhere to be found in the business world a better trained organization than among the wholesale grocers. If our lawmakers and supposed-to-be public servants in national, state and municipal government affairs were as well trained, energetic, capable, hard-working and conscientious in the discharge of their duties as are the manufacturers and wholesale grocers we would, I believe, have a much higher degree of efficiency in handling the public business affairs of the people, and taxation would not be increasing at a rate in this country which makes the increase in the cost of food products in comparison look very small indeed.

"If any one of us business men were to operate our business upon the same basis of efficiency in force in the great majority of instances in our governmental affairs, we would either have to have double our present basis of profits, or we would not last a year. I suppose we will have to continue to be patient and long-suffering, and rest under this unjust accusation, so long as the consumers have the vote, and the demagogue in public life has to have these votes in order to hold office."



Report of the Secretary



By Alfred H. Beckman.

"THE seventh annual meeting of this association affords your secretary the privilege and pleasure of reporting not only progress but the close of one of our most successful and influential years in the history of the association.

"That we have builded well on the foundation laid in 1906 is emphasized by the success attained. This association has pursued the broad and liberal policy of exerting its best efforts in the interest of the wholesale grocery trade as a whole irrespective of membership, and we hope that those wholesale grocers not now members but who have participated in the benefits will in time recognize the results with moral and financial support.

"The much-talked-of term 'middleman' has frequently been applied to the wholesale grocer unjustly. We are not only merchants assemblying the articles we sell, from all parts of the world, but actually buying and conveying them to the retailer in convenient quantities and with more economy than is possible under other conditions. The often-used and much-abused expression, 'the high cost of living,' is also laid at our doors, when, in fact, the consuming public is mainly responsible for the 'cost of high living.' We in our homes expect food products in more sanitary packages and of more convenient and attractive size and style than formerly and must expect to and do pay for it. Take hundreds of articles formerly sold in bulk, subject to dust, exposure and even vermin, which are now put up in convenient, attractive and sanitary packages.

THE REPORT IN DETAIL.

"Pure Food.—This year has, with one exception, been the most active in the history of our association. Forty-three state legislatures were in session in addition to Congress and innumerable food bills were introduced, every one of which received the close attention of your counsel and secretary. The result will be made known to you by the pure food and legislative committee. Our greatest achievement was the Gould amendment to the Pure Food and Drugs Act for compulsory weight or measure branding of food products. Few members have any conception of the importance and magnitude of our pure food work, nor the direct benefit which it is to the trade as a whole and the consumer. Our association was organized especially for the advancement of pure food to the consumer.

"Membership.—Our membership is comprised of 852 wholesame grocers, with 205 branch houses of members, in forty-five states, and while we have sustained some loss through retirement or changes in business, your membership committee this year, as usual, reports a gain.

"One Cent Letter Postage.—We have this year, as last, continued our efforts in favor of one cent letter postage and understand that the present administration is favorably inclined thereto.

"Arbitration.—Arbitration committees have been appointed in twenty-six cities, resulting in twenty-two arbitrations reported to headquarters.

"Contracts.—This committee has been instrumental in the approval of a dried fruit contract which is fair and just to both shipper and wholesale grocer.

"Subsidizing Salesmen.—This practice, indulged in by some manufacturers, is not only again called to your attention, but it is hoped that this convention will affirm and carry out the fifth object of our constitution, or abolish it. It is useless to expect your officers to attempt to elimiate the subsidizing, or, properly called, the 'bribing of your salesmen' unless you, the employer, will refuse to furnish the names of your salesmen to the manufacturer and prohibit your salesmen being bribed. You employ your salesmen and should have control of their services.

"Monthly Bulletin.—Your executive committee approved the issuance of a monthly bulletin to our membership. Only one copy has been issued, which was under date of January 25, 1913. The excessive work at headquarters connected with pure food legislation prevented further publication. Out of about twelve hundred copies mailed, we only received eight acknowledgments at headquarters, indicating apparently a lack of interest.

"Finances.—With the close of our fiscal year, we are privileged to report the best financial condition in the history of the association.

SECTIONAL ASSOCIATIONS NEEDED.

"State and Sectional Associations.—The value of local, state and sectional associations in all branches of commerce is universally recognized. Trade problems arise in small localities which may not apply to an entire state and therefore can best be discussed by local associations; similar conditions may exist in a whole state and can best be conducted through a state or sectional association, hence the practicability and at times necessity of local, state and sectional associations.

"Just consider the value which state or sectional, as well as local associations, are in the enactment of legislation and administration of food laws. The National Association has legislative committees of its own members in practically every state in the Union, yet is not able to properly look after such legislative endeavor for pure food, without the assistance of local, state or sectional interests.

"We can only take up such as are of a national character, while the local state or sectional can well administer to their individual needs. Were I a wholesale grocer in a given locality, I should encourage and would appreciate the value of a local association in that locality, first because it would enable me and others in the neighboring trades to become friends, to understand and help one another and to discuss trade problems together and uplift our business In view of the fact that every whole sale grocer distributes the articles he has to offer outside of his immediate locality, he is confronted with the same need for a state association. The national association can and does only take up matters or subjects which affect the entire United States, while through local or state associations you can be helpful in discussing matters of interest to such sections.

THE CASH VALUE OF ASSOCIATION WORK.

"Have you ever stopped to figure the actual cash value of association work, either local, state or national, or all of them, and compared it with your cost for the work done and results accomplished? Those of you who have not done so, will find that if you contribute to a local, state and the national association, that your expense is infinitesimal compared with the value received, to say nothing of the educationaal influence and good fellowship made possible through that work.

"In closing, I beg leave to remind you that in working out, at times, perplexing problems, which may be irksome or not in harmony with your ideas of commercialism, and, possibly at variance with your seeming best interests, please remember that association work must be conducted in harmony with our laws, and that it is at best an educational campaign, which will be successfully continued in the future as in the past with your co-operation."



Full Report of Counsel



By Dana T. Ackerly of
Breed, Abbott & Morgan.

MR. PRESIDENT, Ladies and Gentlemen: Your counsel reports progress. Modesty forbids us to think that we progress as rapidly in the understanding of your business as you do in the understanding of law, but we do hazard the assertion that the advancement on both sides is distinctly encouraging.

You are so confirmed in the convention habit that we have recently been much concerned lest the nimble tongued advocates of direct primaries now bent upon the abolition of the political convention as a wicked instrument of the boss should attack all conventions. After inquiring into the matter we are happy to allay any fears. You are in little danger, for there seems to be more ancient precedent and distinguished authority for grocers' conventions than for these latter-day devices of the political boss. In order to trace the origin of your annual meeting we had to go far back into the records of the Middle Ages. A writer upon the subject of merchants' guilds enlightens us. We give you his own words:

"At the regular meetings, or on days specially appointed, there was much eating, drinking and merrymaking; 'drynkyngs with spiced cake-brede and sondry wines, the cuppes merilly servyng about the hous.' At Ipswich the brethren came totgether once a year 'familiarly to feast and to refresh their bodies with food and dainties.' At Yarmouth they regaled themselves with 'frometye, rost byffe, grene gese, weale, spyce cake, good bere, and ale,' . . . the hall itself being at that time richly hanged and adorned with cloth of Arras Tapestry and other costly furniture; not sparing any dainty fare that might be had for money. At which feast all private quarrels were heard and ended to the glory of God and mutual love amongst neighbours.'"

Other features of the early guilds were "the settlement of quarrels without litigation, by the guild officers, and absence from slander and malicious imputations against the brethren."

And so you, too, hundreds of years later, have sought the pacific influence of the Atlantic to take good counsel together, meanwhile the dulcet music of the purling waves and the balm of the June zephyrs, notwithstanding the Sherman Act, wantonly combine and conspire in restraint of care and worry and lull you into the fond belief that the unthinking have ceased falsely to brand you as middlemen having no proper or useful commercial functions; that retailers always pay cash; that free deals and subsidizing are lost sins; that all manufacturers have learned wisdom and economy and are consequently eager to employ the efficient machinery of food banking, assembling and distribution that you afford.

Whatever may be the evils or imperfections that you have found still persisting in the wholesale grocery business, we must all acknowledge that the National Wholesale Grocers' Association has never come to its annual conference with greater strength and prestige. By reason of the high ideals that you have evinced in the conduct of your work, the association now holds an enviable position and wields a most wholesome influence in the commercial activities of the country. Your sturdy advocacy of effective and uniform laws and your forceful and intelligent educational work for more clean, businesslike and economical methods of trade have gained for you the attention and consideration of state and national lawmakers, as well as the respect of other interests in the trade and the favor of an increasing number of the consuming public.

There is perhaps no more conspicuous example of your work than the enactment of a national compulsory weight or measure branding law this year. This statute, originally proposed in Congress by Hon. James R. Mann, of Illinois, and successively introduced by Representatives Stevens and Gould and by Senator Burton, was indorsed by many state and federal officers, by a large section of the press, by the National Consumers' League, by the American Association of Food, Drug and Dairy Officials, and by the annual conference of Weight and Measure Officials of the United States. Yet the National Wholesale Grocers' Association was the only one that continuously and vigorously urged the passage of the law, even up to the very adjournment of the last Congress. And in the closing hours of the session. when others had given up hope, and when the debates and conferences over the great supply bills to maintain the machinery of government were crowding out almost every other subject, this bill became a law, and in the brief three months since then, a large number of states, chiefly at the instance of your association, have adopted this federal model. Many other states had previously acted, using the pending national bill as a guide.

The triumph of this legislation is that it recognizes and permits the inevitable variations in weight that defy the most scrupulous packing and storage. Our full weight campaign has already given rise to a famous case. The association advised you to adopt conservative weight brands, and, as you doubtless recall, sent you a suggested list of weights for canned goods of the many varieties. This data was prepared by some of your members after thorough and painstaking experiments. In every instance the weight suggested for the label was a trifle less than the average weight of the contents. A Florida member looked upon this advice when it was "read" and followed it, whereupon one of his retail customers selling canned corn weighing over 20 ounces net and branded "19 oz." was prosecuted, apparently for giving the customer more than he promised. The Florida law did not permit variations.

We now suspect that this Florida corn matter had its kernel of right, because there has recently been reported a New York case in which a grave catastrophe might have been averted had the overweight been conspicuously branded upon the article. It appears from the press reports that certain poultry dealers, just before sending the fowl to market for sale by weight, were feeding them a promiscuous assortment of corn, shot and scrapiron. Some of these birds were served at a New York dinner party, and, as it would happen, one of the guests, a young lady enjoying a delicate morsel of chicken, broke a tooth on a steel girder.

Your counsels' chief activities had to do, first, with lawmaking, and, second, with advice, consultation and the preparation of opinions under existing statutes and court decisions. The first branch of this service, comprising the legislative work in Congress and forty-three states, was of unprecedented volume. All but five of the state legislatures convened this year. For several months the time of two and frequently three attorneys was given to the legislative service alone. Together with other service for the association, it occupied the attention of four men in your counsels' office. Besides this, there was necessarily a great amount of stenographic and clerical work. There was many a sharp controversy in Congress and in these states but we are glad to report that no objectionable legislation of moment to you passed in a single state; and, further, that some effective and uniform laws, favored by you, did pass.

A unique incident may suggest to you the effect that this constant study of current legislation had upon counsel. Owing to a serious political controversy in the Tennessee legislature this year, a considerable number of its members left the state to prevent the enactment of legislation. In referring to the Tennessee situation, a first draft of the annual report of your Pure Food Committee inadvertently made the following observation:

"Many Tennessee legislators fled to Kentucky to *lament* legislation."..

Now, since the lawmakers themselves take this attitude toward legislation, in a single state, you may well appreciate that your counsel, charged with the consideration of legislation in forty-three states and in Congress, frequently had real occasion to *lament* legislation, and were not infrequently tempted to flee to some lawless country.

And this brings us to a consideration of the grave importance that the ever increasing volume of American laws has for you, a great national association, chiefly made up of interstate shippers. The complexity of our country's social and commercial life makes for complexity of law. We are again and again struck with the great variety of laws that have more or less application to the conduct of your business, particularly your interstate business. Our American jurists and lawmakers have sought by a crowded pro-

cession of state and federal statutes to dot the seas of commerce with new beacons every year. Their purpose has doubtless been to safeguard the public and also to make clear the path of business. But the result has been chaos. There have been too many of these shoal lights. Their warnings have often conflicted. The commercial mariner is obliged to steer a hazardous course mid rocks and shoals on every quarter.

We have forty-nine distinct and sovereign lawmaking bodies, Congress and forty-eight state legislatures. All of them are veteran and inveterate lawmakers. In these days it is as natural to pass a law as to pass the salt. Unfortunately the law is not so well seasoned.

A surprising number of our annual grist of statutes have to do with matters that are amply regulated by existing laws. Obviously the need in these cases was not for a new law but for the enforcement of the old law. Some of our states enact every year more new statutes than are passed in the same period for the entire British empire. Law observance will be more common in the United States when we have less lawmaking, better co-ordinated enforcement and interpretation less tinctured with conjecture.

It is small wonder that in this fog of regulation, commerce has been without adequate chart or compass. And for those who must obey not only the national law but the regulations of several different states, the signals at the crossings are too frequently discordant. Restriction, always restriction, is the rule of the day. Fashion hobbles the ladies, and the law hobbles the rest of us. The state and the government have constantly said what you shall not do, but have rarely, if ever, indicated what you may do. But there are hopeful signs for the future. Influential public men are recognizing the justice of laws telling what they may do, as well as what you may not do. Constructive, as opposed to prohibitive, laws are now more strongly urged. Prohibition is desirable but your real progressive knows how and when to quench his thirst.

There is an ever growing need for the merchants and professional men of the country and the rank and file of the citizens to take an immediate and personal interest in the consideration and framing of laws. Your own interests demand that you shall have some hand in the making of the laws that are to govern you. One of the chief purposes of your association has been to bring some order out of all this confusion and to establish uniformity in that field of law that affects your business. You must continue this work if you would temper the law to the shorn merchant.

In the present situation it is particularly pertinent to consider what an ideal system of law would be. This has been no better stated than by Hon. James Bryce, formerly British ambassador at Washington, in his "Studies in History and Jurisprudence." He says:

"The merit of a system of law in point of substance is that it be righteous and reasonable, satisfying the moral sentiments of mankind, giving due scope to their activity, securing public order and facilitating social progress.

"In point of form, the merit of law consists in proficiency, simplicity, intelligibility and certainty, so that its provisions may be quickly found, easy comprehended and promptly applied."

We leave you to judge how far our American system is from this ideal. The remedy lies with you and with other citizens in their respective fields of endeavor. It is idle to blame our lawmakers for ill-considered statutes upon commercial questions, for example, if the merchants do not themselves personally, and through such organizations as your own, study these important subjects, consult with the legislators and furnish the practical and technical information and experience that is necessary for the framing of a just statute.

We come now from lawmaking to the work of advising the association and its members about the laws that are. A task that we had thought might become light with experience has grown in difficulty and variety. It is not to be marveled at, then, that your counsel must burn much midnight oil and frequently wear an anxious mien more perplexed than luminous. In the year now closing, counsel have been called upon to render between 300 and 400 opinions to the association and to members on behalf of the association. We have investigated and prepared opinions upon many new questions of interest. In those cases where the matter was of particular importance to all members, our conclusions have been printed and issued by your secretary.

Several briefs were printed and filed with committees in Washington in defense of the compulsory weight or measure branding bill and in opposition to many proposed amendments, a number of which raised distinct questions in themselves that had to be argued separately. We have also prepared arguments against proposed laws requiring the manufacturer's name to be branded upon food products. We have urged that, in justice, any law of this character should provide that the name of the manufacturer *or* distributor appear instead of violating private contracts between buyer and seller, and arbitrarily requiring the manufacturer's name in every case—and this notwithstanding the fact that the manufacturer clearly has the right, whenever he chooses, without the enforced aid of legislation, to put his name upon any article of his making. For our brief upon this subject we are greatly indebted to certain members of the association and their advisers, who furnished valuable arguments. One of the most important opinions printed and sent to members had to do with the Wisconsin corn syrup cases recently decided by the United States Supreme Court. A copy is appended to this report.

During the past year many cases both of unfair trade and of infringement of trade mark have been brought to our attention. The association could perform a most valuable service to its members by advocating the enactment of a brief, clear, comprehensive and uniform statute to prevent unfair trade. In this field European nations have done far more than we to prevent fraud and misrepresentation, not only in the branding of goods and the use of trade marks, but in the manner of advertisement and sale.

Among the opinions prepared for members were letters of advice upon state and federal guaranties; weight and measure branding under the new state and national laws; trade names and trade marks; unfair trade; bills of lading; a system for the arbitration of disputes; a form of arbitration contract; bulk sales; negotiable instruments; the new match laws; conflicts between state and national laws and among state statutes and regulations; premiums, prizes and trading stamps; import and export requirements; license and tax laws; the proposed income tax as applied to your association; and a great number of other questions of special interest to members in particular states.

As many among you may have been shrewd to observe, some of counsels' opinions are based on the law, some on the higher law, and, now and then, we fain would believe, on common sense. We now refer to one that rests on a most ancient precedent. The rumblings against so-called middlemen have so reverberated in the land that we have, as you know, been constantly fortifying your position, and gathering ammunition to show that you are not middlemen but most necessary public servants. Some time ago we pointed out to your board of directors that the wholesale grocer was nothing more nor less than a philanthropist, because a *genuine* jobber as defined by a great English judge in a case decided a hundred years ago was one who sold for a profit. Now you certainly don't do that. Doubtless that jobber did not handle sugar. Later we intimated to you that the first wholesale grocer was no less a person than Joseph and that Pharaoh was his best customer.

Recently we have investigated further and reach the opinion that your vocation was established by the express decree of a great ruler so long ago as 434 B. C. The fact is recorded in the Book of Nehemiah in these words:

"Then brought all Judah the tithe of the corn and the wine and the oil into the treasuries. And I made treasurers over the treasuries . . . for they were counted *faithful* and their business was to *distribute* unto their brethren."

And we have searched in vain for any law requiring *their* labels to read "Distributed By."

On behalf of the association and at the request of the president and of different committees, we attended the annual meeting of the American Association of Food, Drug and Dairy Officials, held last July; the eighth annual conference of the Weight and Measure Officials of the United States; special meetings of your executive and other committees; a considerable number of hearings at Washington before the new Federal Weight Regulations Board and various committees of Congress, where we spoke in the interest of your association and its members, and the annual meeting of the Chamber of Commerce of the United States, at which, by designation of your president, we served as National Councillor of the Chamber for this association.

Upon each of these occasions we could not fail to note the high esteem in which the National Wholesale Grocers' Association is held. And the reason was often made plain. It is your independence and your devotion exclusively to educational methods for the benefit of the entire trade and the public. There can be no more erroneous

conception of the purpose that should underlie an organization like your own than the belief that strength will come from *dependence* one upon another. Individual independence has ever been the foundation rock of your association. The best merchant, the strongest association, is the one that is most self-reliant. Not one of the trade evils and abuses that occasion complaint both in and out of the trade could survive the year, if every individual would put his own house in order.

And these words are not airy theory. Many a member of your organization is today a conspicuous example of such independence, and their standing and success constitute very practical and convincing proof that it is better to be independent, better to run your own business, than to let your competitors do it; better not to govern your actions according to the policies or reported policies of your rival.

POWER OF THE ASSOCIATION DUE TO EDUCATING THE PUBLIC.

Your association victories have been won, your prestige has been established, by education only, by proving to others that your intentions are honest, that your facts are true, and your reasons just. Results thus attained are permanent. The weakest nation is the one that has subjugated the most people, the one that has the greatest number of unhappy colonies, feeding on discontent. So the most unenviable association would be the one that made enemies and compelled men within or without the organization to acts or policies against their own wishes, reason and judgment.

Your educational power is not to be overestimated. However much you may think your counsel are excessively addicted to advising and to the imparting of information or alleged information, the fact is that we are much given to study and to the absorption of knowledge from those sages among you who now and then consent to draw aside the veil that screens the inner sanctuary or cerebral evolutions of a successful money-making wholesale grocer. In this way we have discovered that there are among you many who are not only great merchants, with cargoes on every sea, like the Merchant of Venice, but modern business experts who have made a science of merchandising, who have solved the mysteries of cost systems, of credit, of correct buying and selling, and, indeed, there are a few whom we shrewdly suspect of having a perfectly uncanny mastery of that science of the sciences—managing men, an accomplishment compared with which the handling of mere goods is a primary study. Note that we are not given to exaggeration, for we have not suggested that even these few have progressed further than to understand *men*.

Now, the knowledge and experience that these men have should be yours. We trust that this association will come to be a clearing house of ideas and information upon commercial problems. Your associates of peculiar training, knowledge and experience in one field could doubtless be persuaded to prepare papers upon and to discuss special subjects of interest. We do not always appreciate the genius that modestly dwells in our midst. Perhaps we may illustrate in what unexpected fashion greatness is sometimes discovered. The incident to which we refer relates to the most important branch of your business. A painter was entertaining a friend whom he had not seen for many years. As the guest glanced doubtfully about the studio the host asked: "What do you think of my work?" The answer came with that cordial frankness peculiar to friends, "They're abominable," and was met with the conclusive, modern rejoinder, "But I sell them." To this his friend proudly observed, "You certainly are a wonderful *salesman*, but you ought to carry some other line." And so we can assure you that you have by no means exhausted the supply of business genius that is to be found within your own membership.

FREDERICK W. HANNAHS.

During the past year you have lost a great leader, a pioneer in association work. It was the good fortune of your counsel to know him well, and we could not close without paying him this tribute. No one gave more generously of his time, his thought and energy. He was deservedly admired and justly esteemed by you. The association can hardly repair the loss of its staunch worker, Frederick W. Hannahs.

We have at other times confided to you our estimate of your secretary. An added year, a very crowded year, that has brought us much in contact with him, confirms our opinion that the association may well congratulate itself on having an officer so capable, so experienced and so efficient.

We desire particularly to thank President Lichty for his unfailing kindness. He is a genuine executive and understands the American art of getting results. Our relations with him have been most agreeable, perhaps because we unquestionably assumed, and with very good reason, that he was an adept wholesale grocer and a past master in association work, whereas he, in turn, assumed that we knew the law. His was a violent assumption, but, notwithstanding any extravagant faiths, his energy and excellent judgment, and your splendid executive board, officers and committees have now brought you successively to the close of your seventh year of notable and worthy accomplishment.

Respectfully submitted,

WISCONSIN CORN SYRUP CASE

APPENDIX TO COUNSELS REPORT.

Counsels' Opinion.

United States Supreme Court Decision.

Relation of United States Food and Drugs Act and State Food Laws.

We have had printed and enclose for your information copy of the important decision of the Supreme Court of the United States in the case of McDermott against Wisconsin and Grady against Wisconsin, known as the "Wisconsin corn syrup cases."

The decision has been the occasion of many inquiries to the association and to counsel, and has provoked much comment. There has been some misunderstanding, because the decision has perhaps not always been read in the light of certain previous decisions of the same court.

McDermott and Grady, retail merchants, were convicted in the Wisconsin courts under a special statute of that state with respect to various kinds of syrup and mixtures thereof with glucose. The statute prescribed in detail how a product containing glucose must be branded. One of the provisions was that every container must bear the word "glucose." It was further provided that such product should, in the words of the statute, "have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance."

The retailers, McDermott and Grady, each purchased from wholesale grocers in Chicago and received direct by rail twelve half-gallon tin cans or pails containing corn syrup (glucose) mixed with cane syrup or refiner's syrup. Each shipment was made in wooden boxes containing the cans. The retailer in each case, according to the usual custom, took the cans from the boxes and placed them on his shelves for sale at retail. In one case the cans were branded: "Karo Corn Syrup. 10 per cent Cane Syrup, 90 per cent Corn Syrup." In the other case the labels read: "Karo Corn Syrup with Cane Flavor, Corn Syrup 85 per cent."

These labels did not satisfy the special statute of Wisconsin. Not only did they omit the word "Glucose," but they contained the words "Corn Syrup."

But under the United States Food and Drugs Act, June 30, 1906, the product was lawfully labeled in accordance with the decision of the Secretaries of the Treasury, of Agriculture and of Commerce and Labor, dated February 13, 1908. The decision reads in part:

"In our opinion it is lawful to label this syrup as corn syrup, and if to the corn syrup there is added a small percentage of refiner's syrup, a product of cane, the mixture in our judgment is not misbranded if labeled 'corn syrup with cane flavor.'"

The United States Supreme Court reversed the state court and held the Wisconsin statute invalid "IN FORBIDDING ALL LABELS OTHER THAN THE ONE IT PRESCRIBED."

EFFECT UPON OTHER STATE FOOD LAWS.

It is evident that the decision does not go to the extent of invalidating all state food laws that are not uniform with the national. The decision strikes only at a state statute that directly contravenes the national. The Wisconsin statute in question was unique among state laws in that it expressly forbade any other label than the one it prescribed if such other label in any way represented a saccharine substance.

The Supreme Court's opinion in this case must be read in connection with earlier decisions of the court, particularly the case of Savage v. Jones, 225 U. S. 501.

In Savage v. Jones there was called in question a statute of Indiana having to do with feeding stuffs and requiring, among other things, that they be branded with:

(a) The name, brand or trade-mark;
(b) The name of the manufacturer;
(c) The location of the principal office of the manufacturer; and
(d) The guaranteed analysis, stating the minimum percentage of crude fat and crude protein and the ingredients.

The United States Food and Drugs Act applies to feeding stuffs as well as to foods, but does not compel feeding stuffs to be branded in any of the ways prescribed by the Indiana law. Nevertheless, the Supreme Court upheld this statute of Indiana and that decision is approved in the present Wisconsin cases.

WHEN UNITED STATES FOOD AND DRUG ACT HAS JURISDICTION.

The decision clearly holds that foods and drugs shipped interstate continue within the jurisdiction of the national law so long as they remain:

(1) UNLOADED.

(2) SOLD BY THE IMPORTER, THAT IS, BY THE PERSON WHO PURCHASED THEM FROM WITHOUT THE STATE AND TO WHOM THEY WERE SHIPPED, or

(3) IN ORIGINAL UNBROKEN PACKAGES.

It was held that, notwithstanding, the importing retailers, McDermott and Grady, had opened and destroyed the shipping cases and placed the consumer's packages upon their shelves for sale, the goods still remained subject to the national law, for the reason that they were still *unsold* by the importer. And these importing retailers had the right to a first sale without interference by a *conflicting state law.*

ORIGINAL PACKAGES. The suggestion has been made that this Wisconsin case virtually overrules all the previous decisions of the court defining original packages. The court did not change nor question the soundness of the established doctrine of the earlier cases regarding original packages. They simply held that under the wording of the United States Food and Drugs Act it was perfectly clear that Congress, in defining what should constitute adulteration and what should constitute misbranding, referred to the immediate container of the article, that is the smaller package prepared for ultimate delivery to the consumer. In other words, Congress has the power to prevent the misuse of the facilities of interstate commerce by legislating with regard both to the consumer's package and the shipping case. This has been the generally accepted opinion ever since the enactment of the law, but the fact remains that the words "original unbroken package" as used elsewhere in that statute refer to the shipping case and not to the smaller packages therein.

We believe it can be demonstrated that the court has not altered its established definition of an original package: Section 10 of the Food and Drugs Act provides that any adulterated or misbranded article may be seized and condemned while being transported interstate, or, having been transported, while remaining "unloaded, unsold, *or* in original unbroken packages." Therefore, if it were true that the court had changed the definition of original package to mean the immediate container, prepared for the consumer, the federal government could follow and seize the product even after the shipping cases were broken, no matter how many times it had been sold within the state; the product could be followed even into the hands of the consumer. Under the reasoning of this and of earlier decisions, it is clear that no such result is intended.

The Wisconsin cases involve a state statute not only different from the national but actually conflicting therewith. The point remains undecided whether an importer would be protected against a state law *that was reasonable and that did not conflict with the national, but that did contain some additional provisions,* as, for example, requirements like those of the Indiana law discussed in Savage v. Jones. It is fair to conclude from various decisions of the Supreme Court that *a state law that did not actually conflict* would apply to the importer after importation. But the National Food Law may nevertheless *follow* the article at least until the importer has sold, even if he breaks the original package, and also so long as the original package remains unbroken even after sale by the importer. As the court intimates in the McDermott case, it is one thing to determine when the interstate character of a transaction ceases and quite another to determine how far the federal government may *follow* a product that may have been *shipped interstate* in violation of the national law.

Under the language of the United States Food and Drugs Act and the decision, it seems that although the delivery of an original package by the importer would be subject to the national law, *the act of selling* the article by the importer within the state *after* the original package has been destroyed would not be an act subject to the jurisdiction of the national law. Yet, under the McDermott case, the federal government may, *for the purposes of inspection, of evidence and of seizure, follow* the individual consumer's packages at least as far as the shelves of the importer. Furthermore, a sale and delivery *by* the *importer* to a person within his state of a food or drug in the original package, that is, the shipping case in which the importer received it from another state, would probably, under the decisions in Savage v. Jones and McDermitt v. Wisconsin, come *both* within the national law *and* the state law in any case where the state law was uniform with the national or contained additional or different provisions, *but did not actually conflict with, nor interfere with the enforcement of,* the national.

PRACTICAL CONCLUSIONS.

The Supreme Court's opinion, read in the light of its other decisions upon the subject, leads to the following practical conclusions:

1. Goods are shipped by a manufacturer in one state directly to a retailer in another. They are prepared and branded in accordance with the national law and regulations, but they are misbranded or adulterated within some provision of a state law *that* actually *conflicts* with the national. Under these facts, the retailer, notwithstanding the state law, has the right to open the shipping cases and sell the individual packages. A *conflicting* state law can have no application whatever until there has been a first sale or delivery *within* the state.

2. The result, however, would be different in case the particular state law in question did *not* actually conflict with the national law, but contained some additional provision, as, for example, a requirement that the name of the manufacturer or dealer be declared upon the label, or that a list of ingredients be branded upon the container. Then the state law would be valid under the Supreme Court's decision in Savage v. Jones, and would apply even to sales by the importer.

3. Sale by a manufacturer to a wholesaler or retailer in the same state would of course always be governed by the state law.

4. A manufacturer in one state ships to a wholesaler in another state. Sales by such wholesaler to a retailer in the same state would be subject to a non-conflicting state law.

5. If a wholesaler in one state ships to a retailer in another state, the situation would be exactly the same as if the manufacturer had made the interstate shipment direct to the retailer.

Although the court has not overruled the original package decisions, it has held that Congress, by the express wording of the Food and Drugs Act, has protected products complying with that law and shipped from one state to another, at least as far as the shelves of the importer, against the provisions of any law of the importer's state that actually *conflicts* with the national. Therefore, the retailer who is able to buy certain products from *wholesalers or manufacturers* in other states, has an advantage over other retailers in his own state. Furthermore, the manufacturer and the wholesaler within the state would be placed at a certain disadvantage, since the retailer could not lawfully market products falling within the condemnation of his *conflicting* state law, unless he purchased from a wholesaler or manufacturer in another state.

The trade in each state should make every effort to have the state food laws all uniform with the United States Food and Drugs Act and with the statutes of that large number of sister states that have already followed the national statute.

TO STOP MISUSE OF DECISIONS.

The Department of Agriculture has made an important change in the form for issuing notices of judgments which give the result of actions under the Food and Drugs Act. Hereafter the headings of these notices will show at a glance whether the Government won its suit or the defendant manufacturer was acquitted. This change results from the fact that the Department has discovered that salesmen have used these notices in the old form to prejudice a customer against a competitor's goods even where the competitor has been acquitted. This was possible with the old form, because it was frequently necessary to read the entire notice of judgment in order to learn whether a penalty had been entered or the defendant acquitted. Many persons did not take the time or trouble to read the notice, and in many cases took it for granted that a notice of judgment meant in each instance that the government had won, and that to sell the defendant's product would be to violate the Food and Drugs Act.

The publication of the notice of judgment is the severest part of the penalty when the government has won its case against the manufacturer, because publication of the verdict against him is a serious blow to his business. The Department has no wish to have those who have won their cases against the government suffer from any misapprehension that they have been convicted. The new form will state clearly in its heading whether the judgment is in favor of or against the manufacturer, and thus make the punitive effect of a verdict in favor of the government still stronger, but relieve manufacturers who have won their cases from the danger of false use of the decision on the part of their competitors.



Address of Sol Westerfeld



CHAIRMAN OF THE COMMITTEE OF TRADE RELATIONS OF THE NATIONAL ASSOCIATION OF RETAIL GROCERS.

"WE recognize in you and your association an important and necessary factor in the distribution of food products. The retail grocers, who ought to know whereof they speak, realize that the wholesale grocer furnishes the most economical and convenient avenue of distribution of the manufacturers' product to the retailer and thence to the consumer. Notwithstanding this we must admit that trade differences exist and will continue until such time as an organized and determined effort shall be made to adjust such differences.

"Unfortunately, your organization and ours have only too frequently resolved to a certain thing at your conventions, at the same time fully determined individually not to pay attention to such resolutions when we again reached home, about the most harmonious relation between the wholesaler and retailer.

"I am sure that there are numerous trade abuses whose abatement requires our united effort.

"We are both agreed that the so-called free deal is detrimental to the members of your organization and ours.

"The free deal is much in the nature of a gratuity or tip.

"It is an admission on the part of the manufacturer giving it that we are underpaid, that our services are worth more than the remuneration ordinarily received by us, and occasionally, in order to keep us in good humor, the manufacturer gives us a tip.

"I should prefer an adequate compensation for my services at all times.

"The free deal not only has the tendency to overstock the merchant, but, being considered as a reduction of the regular purchase price, usually correspondingly lowers the selling price.

"The lower price once fixed in the mind of the consumer makes it almost impossible for the dealer to re-establish the former normal price.

"Another much mooted question is quantity prices. This problem, too, has been condemned by our association by resolution, and that is as far as we have gone. Since we do not live in a Utopian age, I fear it is as far as we ever shall go.

"The National Association of Retail Grocers at their last convention adopted a resolution to appoint a committee on trade relations to co-operate with a like committee of your organization and that of the American Specialty Manufacturers, and that the chairman of the three committees form a joint trade relation committee to adjust trade conditions. This, we are firmly convinced, will make for greater progress and greater harmony among the three great factors in the manufacturers' distribution of groceries. That great trinity, the manufacturer, the wholesaler and the retailer.

"On behalf of my association I respectfully request you to appoint such committee.

"I personally am convinced that the committee may accomplish a great deal of good. I do not believe that we should endeavor to bring about relief by attacking existing conditions in the abstract. We must confine our efforts upon one subject at a time, and then go on to the next.

"No matter what the mode of procedure or what particular 'it may endeavor to solve,' it must be imbued with the spirit of true Americanism to accomplish the greatest good for the greatest number, asking equal opportunity for all and the special privileges for none."

"I consider the manufacturer who has but one price, regardless of quantity, to have an ideal selling policy.

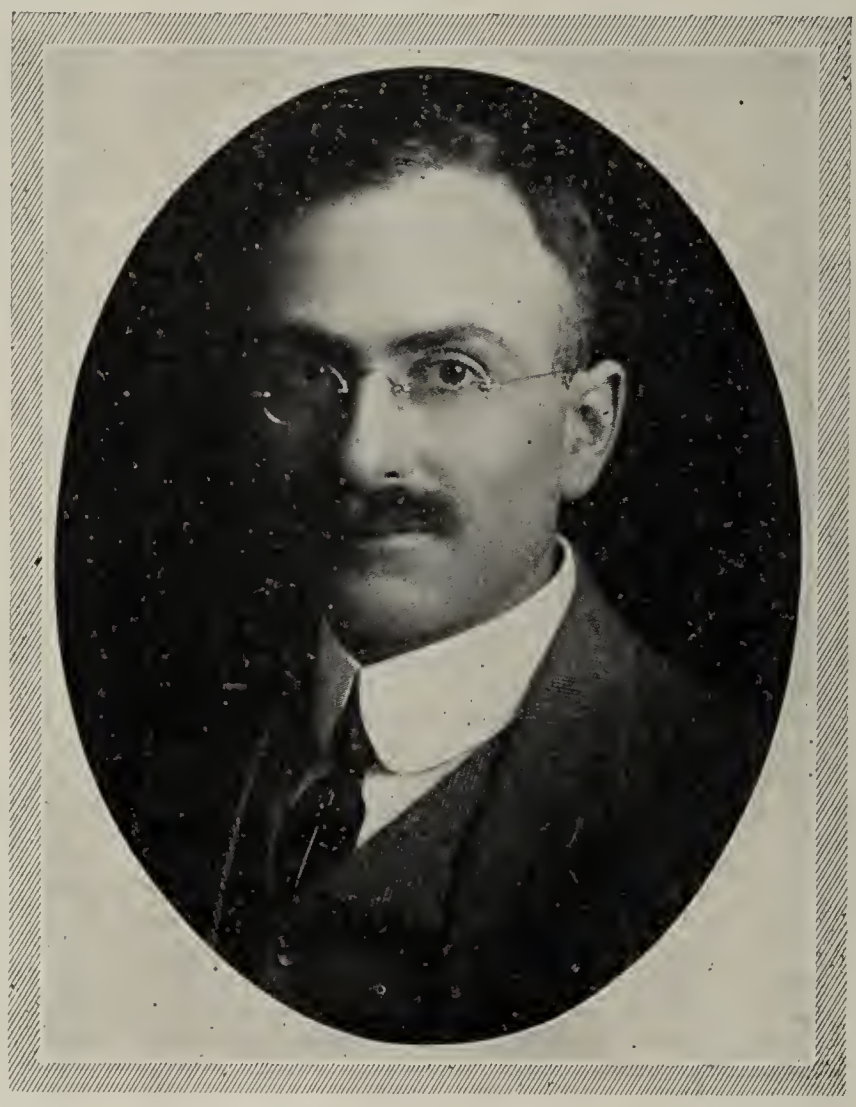
"I would not condemn unqualifiedly the quantity price. While its principle favors the larger factors of distribution at the expense of the smaller merchant, yet under certain restrictions a quantity price might be advantageous to both. If a reduction in price is made by the manufacturer or wholesaler in order to increase the sale of a commodity, it should be made for the benefit of the smaller dealers rather who, in the aggregate, handle at least 75 per cent of the manufacturers' output, than in favor of a favored few.

"The prevailing practice of favoring the larger factors has been the chief means of establishing and perpetuating mail order houses, department stores and chain store systems all to the detriment of that large class of smaller retailers whom I represent.

"A continuation of existing conditions will further encourage the formation of buying exchanges and unless these conditions be modified and the smaller dealer given a more equal chance than heretofore enjoyed by him, you men engaged in the wholesale distribution will be the greatest sufferers. Neither wholesale nor retail grocer can afford to be altogether selfish in considering this or any other problem.

"We owe it to the ultimate consumer to consider his interests as well as ours. If any method tends to lower the cost of distribution and subsequently the cost to the consumer I am for it.

"I want to record my protest against any discussion of this matter which would seem to indicate that there are bodies of our fellow citizens who are trying to grind us down and do us injustice. There are some men of that sort. Thank God, they are not numerous.



SOL. WESTERFELD,
Chairman Trades Relation Committee,
National Assn. Retail Grocers.

The new administration in Washington (state) has reorganized the Food Control Work. The new department is known as the Department of Agriculture, with four divisions. Mr. John H. Higgins, with the title of Chief Deputy, of Foods, Drugs, Oils, Feeds and Fertilizers, has full charge of the food control work. His assistant is Mr. Will H. Adams, who has for the past seven years been the assistant of Mr. L. Davies. The severance of Mr. Davies's active connection with the food work is a matter of regret to all his many friends in the food world. Under Mr. Davies's direction Washington has had a sane administration of the food laws. The public and the manufacturers have been benefited alike, and it seems a pity that a change of politics should cost the state so valuable a servant. Mr. Davies is already well launched in the business of manufacturing cider vinegar pickles.



Committee Reports



REPORT OF THE COMMITTEE ON PURE FOOD
REPORT OF THE COMMITTEE ON PUBLICITY
REPORT OF THE COMMITTEE ON PURCHASE AND DISCOUNT
REPORT OF THE COMMITTEE ON MEMBERSHIP
REPORT OF THE COMMITTEE ON THE METRIC SYSTEM
REPORT OF THE COMMITTEE ON ARBITRATION

Report of the Committee on Pure Food

BY THOMAS F. WHITMARSH—CHAIRMAN

"IT is becoming more and more apparent what a mightly influence for good in the field of food legislation this association and its members at large have become. Pre-eminent in the record of the association's legislative work, the year now ending has witnessed the crowning success of our efforts for the enactment of a national compulsory weight or measure branding law. The enactment of this law at this time formed the foundation argument in urging the passage of similar statutes in other legislatures that have convened this year. Although not enacted as law until March 3, 1913, it has already been adopted in seven states. Other states passed it while it was still pending in Congress.

"In addition, bills modeled after this new national law are now pending in five states, in some cases having passed both houses of the legislature and been sent to the governor for signature. These bills will in all probability become laws, in which event twelve states will have adopted the national law within the space of a few months. The new national law was also introduced in five other states, but failed of passage in each instance, chiefly for the reason that Congress did not act until these state legislatures were about to adjourn.

WEIGHTS AND MEASURES.

"Weight and measure branding of package goods has this year been made compulsory in Iowa, Maine, Michigan, Montana, New Hampshire, Oregon, Utah, and, if the measures now pending become law, in California, Illinois, Pennsylvania and Wisconsin also. Reasonable variations are allowed by the statute in all of these states, in most cases in exact accordance with the national law, in others substantially so. Allowance of time for the disposal of goods on hand ranging from about four months to eighteen months after passage of the act is made in every case except Utah. In which state the law is now in force. Other compulsory weights and measures branding laws have been enacted, but these relate only to one or more commodities specified in each act, in some cases mill products in other oleomargarine, fruits, berries, etc.

"Four dating bills made their appearance in the state legislatures this year. These bills introduced in the legislatures of Illinois, New Jersey, New York and Rhode Island, required the date of packing to be branded upon food products. All these bills failed of passage except in Illinois, where it is still pending.

"This committee was also greeted this year with five manufacturer's name bills, namely, in the states of California, Minnesota, Nebraska, Pennsylvania and Texas, every one of which failed of enactment except the Nebraska bill, which was amended so as to apply only to wheat flour. Laws of limited scope, however, were enacted, requiring the manufacturer's name on a certain commodity mentioned, such as oleomagarine, condensed milk, bread, et cetera, all of which were of little or no interest to wholesale grocers.

"Another measure not uniform with the national law and proposing to require a statement on labels of the grade or quality of the product was introduced this year in several states. None of these bills, however, became a law, unless restricted to some particular commodity.

"Another class of bills appeared in various States requiring dry commodities and liquid commodities to be sold by weight or measure. These bills were undoubtedly not intended by their authors to require the sale of package goods by weight. Nevertheless, under the wording of most of them, it is not unlikely that upon a judicial construction it would be held that the commodities governed by the bill must be sold, not by the package as the customer usually purchases them, but by weight.

IN CONGRESS.

"In Congress the energies of our association were especially directed toward the enactment of the new national weight or measure branding law. The Campbell and the Steenerson bills, relating to all articles of commerce and requiring, among other things, that commodities be branded with the name of the manufacturer, failed of passage, as did the cold storage bills and all others of special interest to wholesale grocers except the Gould bill.

While the special session of Congress may not consider general legislation, the introducing of bills is constant and nearly all of the objectionable measures that die at the close of the

"Since the last annual convention of the association the legislatures of 43 states have convened and in some instances extra sessions have been held. The number of bills of interest to wholesale grocers was larger than ever before in the history of the association.

THE NUMBER OF NEW BILLS.

"At the time of the final adjournment of the 62d Congress on March 4, 1913, about 275 bills had received the attention of your committee, 25 of which were introduced after our previous report. One hundred and twenty-five bills of interest to you have thus far been introduced in the present session. The following is a list showing the number of bills introduced in Congress and in each state since our last report that in some manner affect the interests of the association or its members: Congress, 150; Arizona, 1; Arkansas, 2; California, 30; Colorado, 18; Connecticut, 12; Delaware, 7; Florida, 11; Georgia, 6; Idaho, 3; Illinois, 12; Indiana, 15; New Hampshire, 13; New Jersey, 24; New Mexico, 1; New York, 59; North Carolina, 11; North Dakota, 3; Ohio, 40; Oklahoma, 8; Oregon, 12; Pennsylvania, 44; Rhode Island, 11; South Carolina, 5; Iowa, 17; Kansas, 14; Louisiana, 4; Maine, 11; Massachusetts, 56; Michigan, 40; Minnesota, 36; Missouri, 10; Montana, 6; Nebraska, 11; Nevada, 5; South Dakota, 9; Tennessee, 15; Texas, 7; Utah, 3; Vermont, 16; Washington, 6; West Virginia, 7; Wisconsin, 16; Wyoming, 5; making a total of 765.

"The bills mentioned in the detailed report under the names of the respective states constitute but a small fraction of the numerous total that had to be examined or considered by counsel on behalf of your committee. As stated above, we followed the course of 615 state bills of interest to wholesale grocers and of 400 measures pending in the 62d and 63d Congress. In selecting this number for consideration or action, it was necessary for counsels' office in the course of the work to examine more than 15,000 bills during the year now closing.

A USEFUL YEAR.

"It is a pleasure to report that, notwithstanding the extraordinary volume of the work, your committee has had the most successful year in its history. On the one hand, no seriously objectionable bills have become law, and, on the other hand, many excellent measures have been enacted into law. These include uniform sales acts, negotiable instruments laws, bills of lading laws and similar commercial statutes, as well as food and weights and measures acts. Nearly all of the food legislation enacted in the different states has been in substantial harmony with the national law. The legislation of the year affords added protection to the consumer, protects honest merchants against fraud, and increasingly guards them against the competition of adulterated and misbranded products.

"In the course of the legislative work, your secretary, on behalf of the committee, has sent out literally thousands of letters, most of them prepared by counsel and sent to wholesale grocers and others in the trade and to members and committees of the different legislatures. Our members are promptly informed of bills pending in Congress or in their several states by letters and circulars explaining the more important features and recommending the action that their interests would seem to require.

THE VALUE OF PERSONAL WORK.

"As our association is a national organization, it has been our duty to be represented at Washington at the hearings upon measures of prime interest to commerce. But it has been impracticable to be personally represented in support of or in opposition to legislation in the various states. Furthermore, experience and reason convince us that the members of our association are far better qualified to act in these matters in their respective states and are much more influential than any national association, or committee, or their attorneys could possibly be.

We will not trespass upon your time to report at length the activities of your committee outside of the legislative field.

"We have been represented by counsel at various important hearings in Washington, at the National Conference of Weight and Measure Officials of the United States, and also at the important annual meeting of the American Association of Food, Drug and Dairy Officials, held at Seattle in July last. Letters of advice to members upon the subject of guaranties, including new forms of guaranty under the laws as amended, and opinions prepared by counsel upon various subjects have been issued.

We have asked one of our committee, Mr. Drake, who is the sub-committee upon the metric system to prepare and read at this meeting a special report on that important subject.

"In closing, we desire to express our sincerest thanks and appreciation to the members of the association for the unfailing support they have given the committee during the year. The work would be quite impossible without your help. The great success of the work is due, not to your committee, but to them. The splendid results achieved are the best evidence of the influence and standing of our members in their various communities and of the value of well organized and intelligent association work. The best work accomplished during the past year was by members who appealed directly with facts and arguments to the representatives and senators both in their respective states and in Congress."

Government to Inspect Scales.

As a result of complaints from shippers as to the weights charged for by railroads the Federal Bureau of Standards expects to begin, soon after July 1, the inspection of railroad scales, starting with Eastern roads.

The railroads annually collect approximately $2,200,000,000 from the shippers of the country on scales which belong to and are operated by the roads, and over which neither the shipper nor the government has any control of any information as to the correctness of the scales.

Report of the Commitee on Publicity

By Howard Humphrey, Chairman

"OUR organization and our business needs neither apology nor explanation for its existence. There is a great need, however, that those who make our laws and create public opinion should have information as to what are the real functions of the wholesaler and what is the necessary service he renders in the economic distribution of merchandise.

"How can we best attain the result of getting this proper information more particularly to those who ought to know the basis of our activities, rather than in a general way to parade our work before an uninterested public? Is 'competition the life of trade,' or is it the death of trade? Does co-operation result in restraint of trade or in the greater and more intelligent freedom of trade? Are the present methods of distribution from the manufacturer to the jobber and retailer the most practical and economical? We are greatly interested in bringing the correct answers to these and kindred questions to the fixed attention of those who shape public opinion as well as those who frame our laws.

"The great importance of a thorough understanding and proper handling of the publicity work affecting our organization, or the aggregate grocery jobbing business, has yet been untold, and by the great majority unthought of. It is, however, an integral and important part of the work which cannot with impunity be longer ignored or put aside. Whatever your Publicity Committee may have failed to accomplish, its efforts have been illuminating.

"Those who have served on this committee have discovered many things new and strange to them. One thing that our explorations have turned up is the fact that the bigger the publication the easier it is to secure a hearing—provided you have a theme of real and unforced public interest to present. And the grocery jobbers of America certainly have such a theme. It concerns every man, woman and child in the United States. It goes straight to the vital problem of family life. We have a habit of speaking of the hearthstone as the focus and center of family life, but a hearthstone, however warm and bright, would give only cold comfort to those who sought its cheer on an empty stomach.

EDITORIALS AND CASH.

"The attempt to gain unpaid-for publicity through the columns of the press is as offensive to the general publisher as to the public in the fact that the editorial space and policy of one class of papers is always for sale. The situation changes when you reach the big, high-class journal, where the editorial and advertising departments are divorced. There the editors are keyed up to the keenest vigilance in keeping out of the news and editorial columns anything that is of direct material benefit to any business house. Often this embargo is extended to a line of business as a whole. The attitude is, that if any business has anything to say to the public they must buy the advertising space in advertising columns and deliver their message there.

"The editor of the big publication recognizes the vital, human quality of this problem and the eagerness of his readers to understand it. But big publications of nation-wide circulation move slowly. Your committee has made substantial progress in awakening the interest and securing the attention of editors and writers connected with publications of this character, but it would be manifestly unfair to any publication to reveal the plans that any editors have made. There is competition between editors as well as jobbers, and we must abide by the rules of their game as well as by those of our own. All we are at liberty to say now is, that work has been done that will show tangible results a little later.

"The great magazines and periodicals of national circulation are generally open to conviction and ready to discuss all sides of any question of vital and timely interest to the people. True, they are on the lookout for concealed advertising, and even a member of a publicity committee can get a hearing with these publications provided he lays all his cards on the table and is open and above board in every particular. And if his topic has the right editorial appeal, he stands a good chance of having his facts presented in the columns of that magazine. No question of influence or money enters into the situation with these men. It is merely a matter of merit and appeal on the part of his topic.

"If money is to be spent to put the jobbers' case before the people in the columns of the press it should undoubtedly be spent for straight advertising space, and the advertising copy written by an expert who can present the jobbers' case in few and crisp words, straight from the shoulder. This costs money, but it is far more dignified, direct and effective than the procured write-up brand of article.

THE PSYCHOLOGY OF THE MAP.

"At the suggestion of a magazine writer a food map of the world has been prepared. It was as graphic as a cartoon which tells the whole story, economizes both space of the publisher and time of the reader and is unsurpassed in general effectiveness. It made a marvelously effective lesson in geography, and it taught at a glance the lesson that the jobber's work is assembling foods from every part of the globe. If such a map could be placed in the public schools of the country its lesson would be carried by the pupils into their homes. Maps of this character could be distributed through the local retailer. They should be kept clear of anything of an advertising character, and should be of an appearance and grade of workmanship that would be welcomed in any schoolroom. And child who sees the food map at school carries the news of it to the folks at home, so they can understand how interesting it is. When the mother goes to the public library and sees that food map on the wall it immediately becomes the most fascinating thing in the room to her.

Report of the Committee on Purchase and Discount

By Robert G. Bursk—Chairman

DURING the year your committee felt it necessary to issue two bulletins calling the attention of the trade to the importance and necessity of strictly complying with terms of discount," he said. "There should be no necessity for the issuing of bulletins of this kind. When the manufacturer voluntarily gives an increase in his discount for cash, he does it because he expects something in return. Outside of your appreciation the only return he can get is to get his money more promptly and in a specified time.

"The manufacturer who has increased his discount for cash for this purpose watches his returns very closely and very naturally takes exception when his time for discount has been exceeded. This sometimes gives rise to unpleasant controversies between the manufacturer and jobber, creating bad feeling on both sides. Cases of this kind jeopardize the retaining of the additional discounts that have already been allowed and discourage the granting of additional cash discounts by other manufacturers.

"It is true that the percentage of these cases is small, but, unfortunately, the manufacturer does not look at it on a percentage basis. Your committee is doing everything possible to minimize this percentage, but we believe that with the manufacturer lies the remedy for making this condition nearly 100 per cent perfect. He should insist, in every instance, that his terms should be strictly lived up to and make no exceptions and play no favorites. It is not fair to the great majority of his customers who live strictly up to his terms that he should make any exceptions.

"Our letter of May 6 on this subject defines clearly from the Association's standpoint what discount for cash terms means. Our efforts along these lines are appreciated by manufacturers. The efforts of this committee are for the benefit of all wholesale grocers, whether members of this association or not, and the work of this committee is along the lines of discount for cash only; we have nothing to do whatever with trade discounts or prices.

"We have had some complaints from jobbers that manufacturers are not always prompt in getting out bills, and that invoices are dated before goods are shipped. We feel that any manufacturer whose attention was called to delays of this kind will be found reasonable and correct them.

"A point that has come up many times is the question of paying for goods before they arrive. It is the privilege of the buyer to do as he wishes, but if he wants to avail himself of the discount for cash which the manufacturer offers to get his money in a specified time, he must pay the bill within that time, whether the goods have arrived or not. We believe that many of the troubles on this question could be overcome if matters were promptly explained to the buyer.

"Our trouble could be lightened somewhat if manufacturers where goods are sold delivered would prepay the freight. Much trouble and annoyance is caused by the jobber not getting his freight bills promptly enough to make the deduction in time to discount the bill within the specified time. When the manufacturer voluntarily grants an increase in his discount for cash, every jobber should show his appreciation in writing."

Report of the Committee on Membership

By Warren Goddard—Chairman

THE membership of the National Wholesale Grocers' Association is today 852. This membership comprises 852 home establishments and 205 branch houses. This means that the National Wholesale Grocers' Association comprises 1,057 active wholesale grocer houses, which represent a large proportion of the total volume of the wholesale grocery business done in the United States.

During the past year the association has lost forty-three members. The majority of these are firms retiring from business or consolidating; a few from nonpayment of dues. New members added during the year numbered forty-eight. Among these forty-eight are a number of the largest wholesale grocers in the country. There are still a number of interior wholesale grocers who have not joined the association. It is nearly impossible to persuade these to join without personal interview; therefore it was the suggestion of the committee that every member make it a point during the coming year to see at least one or two interior jobbers within fifty miles of his home town and explain the work and benefits of this association.

The list of members in the different states is as follows:

	Branches.	Members.
Arizona	2	1
Arkansas	19	14
California	3	26
Colorado	3	17
Connecticut	7	11
Delaware	0	3
District of Columbia	0	2
Florida	0	8
Georgia	0	15
Idaho	2	1
Illinois	2	52
Indiana	7	42
Iowa	12	30
Kansas	7	23
Kentucky	4	26
Louisiana	1	12
Maine	1	17
Maryland	1	17
Massachusetts	5	39
Michigan	19	24
Minnesota	3	22
Mississippi	1	10
Missouri	10	43
Montana	4	0
Nebraska	3	19
New Hampshire	3	8
New Jersey	2	6
New Mexico	6	3
New York	7	72
North Carolina	0	2
North Dakota	5	3
Ohio	5	72
Oklahoma	9	15
Oregon	8	5
Pennsylvania	29	87
Rhode Island	0	8
South Carolina	0	4
South Dakota	1	3
Tennessee	3	8
Texas	2	4
Utah	1	5
Vermont	0	4
Virginia	0	19
Washington	1	13
West Virginia	7	18
Wisconsin	0	19

Report of the Committee on the Metric System

By Fred R. Drake—Chairman

"THE metric system of weights and measures is a decimal system and is much simpler to learn and easier of application than our English system, and just as simple for all uses compared to our English system of weights and measures as our United States decimal system of coinage is simple compared to the cumbersome, unrelated arbitrary English system of money. Practically the whole world, save ourselves and England, have adopted it. Strictly speaking, we are at the present time not in accord with any country in the world.

"The National Wholesale Grocers' Association of the United States has been the pioneer as a national trade organization in advocating uniformity in national and state legislation in all matters pertaining to the grocery business and is wielding already great influence in helping on to realization this plan of universal standards of weights and measures.

"The Constitution of the United States says 'The Congress shall have power to fix the standard of weights and measures.' In 1866 Congress legalized the metric system for all purposes and all the states have been provided with sets of the metric standards.

"In 1893 the International Bureau of Weights and Measures, of which the United States is a member, adopted the meter and the kilogram as the fundamental standards from which the yard and pound are to be derived. This International Bureau was formed in 1875.

"In 1899 the metric system was made obligatory in Porto Rico. In 1901 it was made legal in the Philippines, where it had been in use under Spain. It is used in the scientific investigations conducted by the government and is required in the medical work of the War and Navy Departments and the United States Public Health and Marine Hospital Service.

"In 1904 Congress adopted the international electric units based on the metric system as the legal units of electrical measures in the United States.

"In 1912 the National Jewelers' Board of Trade adopted the metric carat to go into effect July 1st, 1913, so that the United States may be in harmony with the world.

"Foreign postal rates are fixed in metric units and our new parcels post weight limit is based on the foreign parcels post weight limit of five kilograms, which is the equivalent of our eleven pounds.

"The convention of the Pennsylvania, New Jersey and Delaware Wholesale Grocers' Association adopted a resolution favorable to its eventual use. Dr. S. W. Stratton and Dr. L. A. Fisher of the Bureau of Standards, Department of Commerce, Washington, have been helpful in every way in aiding us to carry on our investigations and we have visited them four times by invitation at the time of the conference of the Weight and Measure Officials of the United States.

"In April a conference was held in New York with Dr. Fritz Reichmann, superintendent of weights and measures in New York State, and he heartily approved of our plan of educating the public, including special work to be done by the wholesale grocers and the retail grocers.

"In accordance with this report we recommend that our association this year affirm our stand taken last year at St. Louis and urge that the pure food and legislative committee of the incoming administration continue this work with all vigor."

Report of the Committee on Arbitration

W. B. Timms—Chairman

"YOUR committee on arbitration takes pleasure in reporting that during the past year material progress has been made along the lines suggested in our report made at the 1912 convention, and it seems to us that in the not far distant future all disputes between buyers and sellers in the wholesale grocery and canned goods trade may be settled by men familiar with the business and at trifling cost, and with perfect fairness to both parties to each dispute. When the method of arbitration instead of litigation was first suggested it seemed an Utopian dream of the distant future, but is recognized now, within two years, as practical, workable and fair, and is in operation in twenty-six cities, covering practically the entire country.

"We consider it of great importance to the permanent success of the arbitration plan that every arbitration should be reported by the chairman of the local committee to the secretary of the National Wholesale Grocers' Association so that a record may be kept from year to year—these reports are to be held as strictly confidential by the secretary and reported only by number or in such a manner as not to reveal the names of the principals.

"Twenty-one arbitrations under our rules have been reported to Secretary Beckmann during the year, while a considerable number have been held under our rules and by our joint committees that have not been reported. Of these, five were held in Chicago, twelve in Boston and four in New York. The principals, however, were in several cases not located in these cities.

"In the decisions reported several awarded an allowance to the buyer, thus making it obligatory for him to accept and pay for the merchandise at the correct price for the article delivered. In nearly all the canned goods cases decided in favor of buyers a rejection on inferior quality was authorized. Several of the cases were decided in favor of the shippers or packers.

"We cannot estimate the saving in money to our members by arbitrating these cases instead of settling them through legal action. We trust these first years' object lessons may impress upon our members the value of this method of settling business disputes, even if they had not thought our theoretical arguments of importance.

"We make no argument for the arbitration plan for settling commercial disputes; this has been done in previous reports, and we believe every member of our association is familiar with its advantages. Nations and states are adopting it, in place of the stern arbitration of war; commercial bodies throughout the world are urging the method upon their members to prevent litigation, ill feeling and large expense. As long as two men buy and sell merchandise, honest differences of opinion will occasionally arise. How infinitely better it is to settle them by this plan than to carry on lengthy controversies, frequently becoming bitter and often estranging the participants, and usually resulting in litigation—expensive and exceedingly troublesome.

"Your committee recommends:

"'The extension of the arbitration plan to other commodities in addition to canned goods, giving the national committee and local committees the power to add to local arbitration boards for specific cases as necessary.'

"'Insisting that our association, through its arbitration committee, shall be represented and have voice and vote on all disputed questions that may arise with the members of the associations.'

"'That the chairman of local boards report in every case the arbitration in brief detail to the secretary of the National Wholesale Grocers' Association.'"



Address by John A. Green



SECRETARY OF THE NATIONAL RETAIL GROCERS ASSOCIATION.

"LOOKING at the business situation of today as it concerns us and comparing it with conditions before you organized your association, I can see a great advancement for the better. Permanent benefit to you must come through the betterment of your distributers. You may get better discounts or better prices from manufacturers, but unless you improve the output what does it profit you? The time has come when you must pay more attention to this part of the trinity.

"True, the retailer through his organization has done much for himself. His losses are less, in fact, so small that it no longer figures in the cost of doing business. He is learning the value of discount and in a great many ways he has proved his business methods, all of which has benefited you. Now what have you been doing?

"You endeavor by every possible means to load him up over his ability to pay, either through free deals or quantity price. How many good men have lost the few hundred dollars they had just because they could not say no to the over-persuasiveness of the jobbers and salesmen? It does not take long for a man to 'go broke' and get out of business, leaving you with an account which reads like this, 'Assets one hundred, liabilities, one thousand dollars.' You have wasted your energy, first in securing him for a customer; you've lost an account; and you must spend the same energy to secure another customer.

"I believe it will pay big interest on the investment if you will spend your energy in keeping the same man in business and make of him a successful and permanent merchant, and save yourself from losses and the expense of building up a new trade. The moment he begins to fall behind, you should know the reason, and by a little advice or by giving him a little help in unloading his surplus stock, keep him from failure.

"Don't take from the salesman this statement, 'He couldn't pay today, but I know he's all right.' That is the beginning of the end unless there is sufficient security to warrant the statement.

"I know the answer you'll give to what I'm saying: 'If I don't do it, some other firm will'; or worse, 'I can get a long price out of him and I'll take the chance.' Let me ask, isn't it time to cut out this deep-seated parasite suspicion, open our hands, throw the cards on the table and play a game worthy the men engaged in the business?

"We have hundreds of secretaries organizing local associations. As fast as they get one new member another goes out of business and it seems an endless chain. How much are you responsible for this condition? We want your help and must have it. The number of members that we have taken into our organization and the amount of energy lost would look to you appalling.

"Primarily and principally the object of business is to make money and consequently where gain is the chief incentive, greed and selfishness are apt to predominate. Against these influences, however, are arrayed the growing forces of an enlightened public sentiment and an awakened public conscience that demand a square deal and fair treatment in every walk of life. This is an age of commercialism. The encouraging sign is that there is steady progress, despite occasional slaps and slams. Business standards of honor and of honesty are distinctly higher than they were ten or twenty years ago.

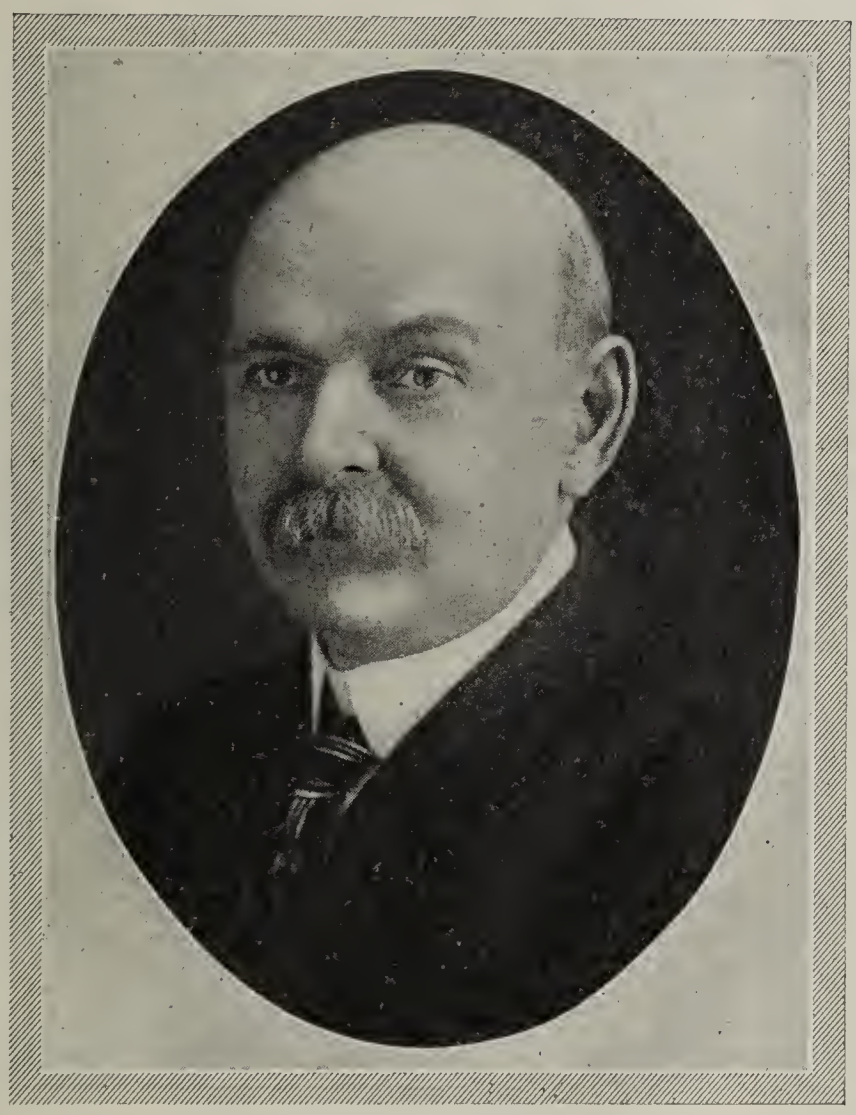
"We are having a continual demand for a less expensive service. The public is figuring the cost between the manufacturer or grower and themselves and I am not sure that they have not some cause for complaint. I have been looking into the tremendous cost of these catalogues of the mail order houses and when I figure the cost of the traveling salesman the catalogue shows the least expense by great odds. We need the salesman but do we need as many? If the retailer can be induced to concentrate a hundred dollar order instead of dividing it into eight or ten orders it would cost less to get it. The public are demanding a change and they are looking to the wholesaler and the retailer to lessen if possible the cost of distribution. Can we do it?

"The wholesaler and retailer must move as one body; there is no dividing line; each is a distinct necessity and yet absolutely inseparable. The most cordial feeling should exist, and I am pleased to say that we have made great strides in this direction through that most able and diplomatic gentleman, the president of your association, Mr. Lichty.

"I was much pleased when reading an article, I think in 'Frank Leslie's', by C. W. Post, in which he said: 'It is time to stop feeding these yellow journals who are continually casting reflections on the manufacturers and distributors of food products.' If more of our manufacturers would take this stand we should see the end of this abuse that has been heaped on the head of the distributing forces of the United States. A press committee from your association would be of great service.

"The day is coming when we shall have a one-price-to-all system and no special privileges. The American Tobacco Company announcing this policy is the beginning of what is going to come. There are a very large number of firms in the United States who have been following this plan for years, but the manufacturers of food products, with few exceptions, have been slow to accept changing conditions; but public sentiment will tolerate nothing that does not have for its very foundation 'fair play' or equal treatment for all. The manufacturer realizes that he owes an obligation to the wholesaler and the retailer. The wholesaler to the manufacturer and retailer, and the retailer realizes that conditions can and will be improved only as he can enlist the co-operation of the manufacturers and wholesalers.

"I am thankful that, through the uplifting influence of the organization, men are beginning to have respect for the rights of others. In unity of thought is strength. In harmony and respect, one for the other, there is progression, and in co-operative work there is culmination and results."



JOHN A. GREEN,
Secretary of the National Retail Grocers' Association.



The Third Day—Friday, June 6



ELECTION OF OFFICERS
ADDRESS BY DR. CARL L. ALSBERG

IN the closing hours of one of the most satisfactory conventions the National Wholesole Grocers' Association has ever held the association elected Oscar B. McGlasson, of Chicago, president and chose a board of directors containing many new names.

The problem of selecting a president was one which has interested the leaders all through the convention. Instead of having a slate made up with no disposition to change it, as had been supposed was the case, at the eleventh hour Vice President Robert G. Bursk, of Philadelphia, who was the unanimous choice for the presidency, was reported suffering a nervous breakdown, which made it impossible for him to accept any responsibility. This threw all calculations into the wind, and, between the selection of the right kind of material in the form of a man who possessed the time to assume the arduous duties of president, and at the same time serve the diplomacy of territorial considerations and other problems, there was no easy task presented.

At length the diplomatic situation suggested the wisdom of selecting a Chicago man as leader, and, by common consent, Oscar B. McGlasson, of McNeill, Higgins Co., was the most available man. But Chicago already had a most efficient and popular vice president in the person of Robert J. Roulston, who happens to be of the same firm as Mr. McGlasson, and it was manifestly unwise for one firm to have two such offices, contrary to the unwritten law in such cases. Mr. Roulston solved the problem by declining to stand for re-election. Treasurer Andrew H. Wellington also declined re-election as treasurer.

It was also felt that as the by-laws had been changed so as to constitute the former presidents an advisory committee, that it would be well to purge the old executive committee and directors of most of these former executives, and make as much room as possible for new blood in the management. The result was the dropping of five of the nine names of the old executive committee and the omission of not less than two names from the board of 48 directors.

THE NEW OFFICERS.

The full ticket elected was as follows:

President, Oscar B. McGlasson, of McNeil Higgins Company, of Chicago; first vice president, W. C. McConaughey, the Star Grocer Company, Parkersburg, W. Va.; second vice president, P. C. Drescher, Mebius & Drescher Company, Sacramento, Cal.; third vice president, A. M. Wilson, the E. S. Kibbe Company, Hartford, Conn.; fifth vice president, O. J. Moore, Schenkberg & Co., Sioux City, Iowa; treasurer, Theodore F. Whitmarsh of Francis H. Leggett & Co., New York City.

Directors, B. D. Crane, Reynolds, Davis & Co., Fort Smith, Ark.; G. Wormser, Sussman, Wormser & Co., San Francisco, Cal.; Justus Krafft, Haas, Baruch & Co., Los Angeles, Cal.; Charles Hatfield, the Colorado Supply Company, Denver, Col.; E. L. Adams, E. L. Adams Company, Atlanta, Ga.; A. S. Pendleton, A. S. Pendleton Company, Valdosta, Ga.; O. C. Mattern, W. M. Hoyt Company, Chicago, Ill.; W. O. Moore, C. A. Schrader Company, Inc., Indianapolis, Ind.; W. F. Viehe, Bement & Seitz Co., Evansville, Ind.; J. E. Moore, the Symns Grocer Company, Atchison, Kan.; George W. Ferguson, Downing Taylor Company, Springfield, Mass.; Harry K. Huntoon, Minnesota Mercantile Company, Stillwater, Minn.

Also Tom Lyle, the Tom Lyle Company, Inc., Meridian, Miss.; C. J. Schnecker, Nave McCord Mercantile Company, St. Joseph, Mo.; E. A. Raymond, Ridenour Baker Grocery Company, Kansas City, Mo.; Warren Goddard, the Goddard Grocer Company, St. Louis, Mo.; C. T. Wilson, Granger & Co., Buffalo, N. Y.; George Jennerich, Jennerich & Von Bremen, New York City; Joseph Seeman, Seeman Brothers, New York City; H. S. Reynolds, Wm. T. Reynolds Company, Poughkeepsie, N. Y.; Chas. Fielbach, the Fielbach Company, Toledo, O.; R. E. Hills, the V. T. Hills Company, Delaware, O.; O. D. H. Halsell, Williamson Halsell Frasier Company, Oklahoma City, Okla.; D. H. Crocker, Crocker Grocery Company, Wilkesbarre, Pa.; D. C. Shaw, D. C. Shaw & Co., Pittsburg, Pa.; J. Grant Schwarz, Wilman Schwarz Co., Harrisburg, Pa.; Geo. A. Midwood, H. Midwood Sons Co., Providence, R. I.; Geo. M. Jackson, Orr, Jackson & Co., Nashville, Tenn.; A. M. Nalley, Nalley Grocery Company, Austin, Tex.; F. D. Beveridge, Harvey, Blair & Co., Richmond, Va.; J. C. Lang, National Grocery Company, Seattle, Wash.; S. S. McClintock, McClintock Trunkey Company, Spokane, Wash.; E. H. Moore, Shattuck & Jackson Co., Parkersburg, W. Va.; W. Hoffman, John Hoffman's Sons Co., Milwaukee, Wis.; T. F. Branham, Eau Claire Grocery Company, Eau Claire, Wis.; Gilbert Tullock, Miner Reid & Tullock, New Haven, Conn.; T. E. Bryan, Snow & Bryan, Tampa, Florida; Howard Humphreys, J. F. Humphreys & Co., Bloomington, Ill.; Wm. Kothe, Kothe, Wells & Bauer, Indianapolis.

Also William H. Dart, Henry Darts Sons, Rock Island, Ill.; George P. Smith, Western Grocer Company, Dubuque, Ia.; W. M. Burt, Burt-Saizer Company, Burlington, Ia.; Jacob Zinsmeister, Zinsmeister Bros., Louisville, Ky.; A. G. Bryan, Bryan, Goodwin & Hunt, Lexington, Ky.; George P. Thompson, Smith Bros. Company, New Orleans, La.; Alex. T. Laughlin, Milliken, Tomlinson & Co., Portland, Me.; Stewart Edgerton, Edgerton Bros., Baltimore, Md.; Clarence E. Hanscom, Delano, Potter & Co., Boston, Mass.; B. B. Cushman, National Grocer Co., Detroit, Mich.; Guy W. Rouse, Warden Grocer Co., Grand Rapids, Mich.; Joseph W. Bragdon, Winston, Harper, Fisher Co., Minneapolis, Minn.; Chas. H. Pickens, Pickens, Paxton, Gallagher & Co., Omaha, Neb.; H. O. Rice, Sergeant, Rice & Co., Nebraska City, Neb.; C. C. Abbott, Kee, Abbott Grocery Co., Keene, N. H.; J. H. Blackwell, Blackwell Sons Co., Trenton, N. J.; O. B. Rowe, J. O. & G. N. Rowe, Oneonta, N. Y.: D. P. Dewitt Grocery Co., Brattleboro, Vt.

Executive Committee—Douglas H. Bethard, Jobst Bethard Co., Peoria, Ill.; D. C. Shaw, D. C. Shaw & Co., Pittsburg, Pa.; O. C. Mattern, W. M. Hoyt Co., Chicago; Warren Goddard, the Goddard Grocery Co., Detroit, Mich.; J. W. Bragdon, Winston, Harper, Fisher Co., Minneapolis; Chas. F. Feilbach, The Feilbach Company, Toledo; C. T. Wilson, Granger & Co., Buffalo, N. Y.; Wm. Kothe, Kothe, Wells & Bauer, Indianapolis, Ind.; C. E. Hanscom, Delano, Potter & Co., Boston, Mass.

The Executive Committee met immediately after the meeting adjourned and elected Alfred H. Breckmann as secretary and designated the present counsel, Breed, Abbott & Morgan, of New York, to continue until formal confirmation at the next Executive Committee meeting in New York, when the counsel will unquestionably be fully re-elected.

THE RESOLUTIONS.

The resolutions which were adopted contained little of a radical nature, being chiefly devoted to an expression of thanks for all who aided in the convention and have co-operated with the association during the present year for the furtherance of its work. Among those included in the courtesies were all the officers of the association, the committees and directors, the Rev. Birney S. Hudson, of Atlantic City; Mayor Riddle, of Atlantic City; Dr. Carl Alsberg, chief of the Bureau of Chemistry; Hon. Bert M. Fernald, president of the National Canners Association; Dr. S. W. Stratton, chief of the Bureau of Standards at Washington; Secretary John A. Green and Director Sol. Westervelt, of the National Retail Grocers' Association; President John E. Linihan, of the American Specialty Manufacturers' Association; President Richard Dallam, of the National Canned Goods and Dried Fruit Brokers' Association; President L. B. Cameron, of the National Association of Brokers in Refined Sugar; D. C. Shaw, Rev. Wm. Quay Roeselle and Francis S. Hutchings, of the banquet galaxy of speakers; President Lichty, Secretary Beckmann and Treasurer Wellington; also the trade press.

The following resolutions were also adopted.

Expressing the appreciation of the association of the good efforts of the National Canned Goods and Dried Fruit Brokers' Association in obtaining the

best products and improving conditions of marketing the canned food and dried fruit output of the country.

Deploring the immense fire loss of the country and recommending to its executive committee that the association subscribe to the membership in the National Association of Fire Prevention.

Commending the action of the United States Government in prohibiting the use of saccharine, and in the interest of uniformity, urging a similar action by the several states.

Extending thanks and appreciation to Hon. James R. Mann, Hon. Frederick C. Stevens, Hon. Sam W. Gould and Hon. J. Harry Covington and Senators Theo. E. Burton, George T. Oliver, James A. O'Gorman, and to the other Senators and members of Congress to whose earnest and forceful efforts was due the enactment of the compulsory weight or measure branding amendment of March 3, 1913, to the national food law.

Reaffirming support of uniform state food laws and of compulsory weight and measure branding laws upon the basis of the food and drug act June 30, 1906, and the amendment of March 3, 1913.

Expressing appreciation of the successful work of the pure food committee this year in securing uniform weight branding and other laws in a large number of states, and directing that their work be continued to the end that there may be uniform laws upon the subjects of weights and measures, food, bills of lading and other commercial subjects throughout the various states.

Opposing any requirement under state or national compulsory weight or measure branding laws that the weight or measure be branded upon shipping cases, temporary containers the consumer never sees, but favoring the enforcement of these laws as applied to the individual package.

Favoring that all goods sold by weight should be sold by net weight and urging those manufacturers and producers that have not already done so to adopt the net weight basis recommended by our Uniform Tares Committee.

That the Publicity Committee be continued permanently; that its publicity work be vigorously advanced.

Commending the intelligent work of the National Canners' Association in promoting the canned goods trade and improving the character and standing of these goods.

Reaffirming the association's attitude upon the one-cent letter postage question and urging upon Congress the enactment of legislation to establish the one-cent letter rate throughout the United States.

Expressing thanks for the work of the arbitration committee and recommending that a system of arbitration similar to that now employed by this association in co-operating with the National Canners' Association and the National Canned Goods and Dried Fruit Brokers' Association, be extended to cover transactions in all lines of food products.

Favoring uniformity in all matters of legislation affecting commerce between the states and deprecating the lack of uniformity existing today in different states representing weights and measures.

Also the following:

"Whereas it appears in the experience of merchants everywhere that the public utterly fails to comprehend the true worth and need of efficient mercantile channels and commercial methods,

"Resolved, that this association, representing taxpayers and national food distributors favors the establishment of vocational schools for the popular study of such questions or the introduction in the public schools of studies relating to industrial and business affairs in order that these fundamental questions of commerce may be commonly understood."

THE METRIC SYSTEM.

The following resolution on metric system was also adopted:

"Whereas, If we are to continue to increase our foreign trade, especially in South America, following the opening of the Panama Canal, and join in the unification of the practice among the commercial nations, no factor is more fundamental or important in our modern movement to place industry and commerce upon a scientific basis than a simple system of weights and measures international in its character, and

"Whereas, The experience of most of the nations of the world shows that the transition to the international metric system need present no difficulty greater than these regularly encountered in industrial changes of process, equipment and materials, and

"Whereas, The widespread teaching of the metric system in the schools, the diffusion of the system in our text books, its use in laboratories and shops, its legalizations for all transactions by the Federal Government; its use in Porto Rico and the Philippines for all purposes; its use by the government in all scientific investigation and in the medical work of the War and Navy Departments, the United States public health and marine hospital service and its use in all electrical measures. In view of all these facts, be it

"Resolved, That we reaffirm our position taken at St. Louis last year and urge the pure food legislative committee of the incoming administration to continue this work with all vigor along lines educational to the wholesale grocer. The retail grocer and the consuming public, looking to the eventual compulsory legal adoption of the metric system in simplification not only of the interstate but international commercial transactions."

In addition to the regular resolutions, the association voted unanimously in favor of continuance annually of a canned food week in which all branches of the trade shall boom the consumption of canned goods.

President McGlasson was escorted to the chair by Philip C. Staib, the tallest, and O. C. Mattern, the shortest man in the convention, and made a brief but enthusiastic address.

THE MEETING PLACE NEXT YEAR TO BE DECIDED LATER.

The matter of the next place of meeting was referred to the executive committee with power after invitations had been received and read from Chicago, New York, Mobile, Charleston, S. C.; Niagara Falls and Minneapolis for fair competition.

Andrew Ross of Battle Creek, Mich., formerly president of the Specialty Manufacturers' Association, called attention of the convention to the formation in New York of the American Fair Competitive League, composed of manufacturers who favor the enactment of laws to permit manufacturers of advertised goods to regulate the sale of their own brands and urge the support of the movement by all wholesalers.

Mr. Ross was followed by Sylvan L. Stix of New York, who enthusiastically supported Mr. Ross in his position and hoped every jobber would realize that his own prosperity lay in the issue contended for by the manufacturer. The regular program of the day was carried out as planned without change. The various addresses and reports presented will be found printed below.

The convention adjourned about 3 o'clock.

The New Advisory Committee.

The association amended its by-laws, in accordance with a recommendation of a special committee, so as to provide definite duties for its former presidents. The new idea has much practical merit and is best explained in the committee's draft of the changes, which make the by-laws read as follows:

ARTICLE VI—ADVISORY COMMITTEE.

First.—There shall be a permanent committee of the association known as the Advisory Committee. It shall consist of all the ex-presidents of the association and its chairman shall be appointed by the president from that committee.

Second.—Whenever, in the opinion of the president, it shall be necessary or advisable, any one or all members of this committee shall, by direction of the president, meet with the Executive Committee.

Third.—Each member of the Advisory Committee in attendance, as hereinbefore provided, upon a meeting of the Executive Committee, shall be entitled to the same privileges excepting the right to vote as a member of the Executive Committee.

Fourth.—In case any member of the Executive Committee is unable to attend a meeting thereof, he shall have the right to designate in writing, subject to the approval of the president, any member of the association in good standing to attend such meeting of the Executive Committee in his place. The person so delegated shall be entitled to the same privileges, including the right to vote, as a member of the Executive Committee.

TAKING HIS MEDICINE.

Harry Furniss, the English humorist, was talking to a New York reporter about America's wonderful captains of industry.

"But a captain of industry," said Mr. Furniss, "is in the last analysis, just a man with sense enough to get other people to do his hard, unpleasant work for him.

"I know a little boy who will probably grow up to be a tremendous captain of industry. His nurse said to this boy one day:

"'Come, Tommy, take your dose of jalap like a good child without making any further trouble. Your father says he'll give you 5 cents if you do.'

"'I'll tell you what, nurse,' said the youngster eagerly—'you take the jalap for me and then I'll give you 2 cents and only keep 3 for myself."

Address of Dr. Carl Alsberg

CHIEF OF THE FEDERAL BUREAU OF CHEMISTRY

ONE of the great needs of the times is more science in the manufacture of foods. Here in the United States the business of food manufacture has advanced with extraordinary rapidity. We no longer "live at home," as they say in the South. Our table is dependent on the distant grower, the distant manufacturer. The food problem is not a problem of the home or even of the locality. It is a problem nation-wide. It has therefore become necessary for the Department of Agriculture to broaden its scope, to consider not only the production of raw materials but also the production of manufactured food products. It has become the function of the Department to regulate and aid in the development of food manufacture so that the products of our factories shall be prepared under the best sscientific and economic conditions. Much has been done already. Much remains to be done. But we hope the day is not far distant when American manufactured foodstuffs will be recognized as representing the highest standard.

When food was manufactured only for the home or at most for local consumption, the experience handed down by tradition was sufficient. A mill to grind grain, a smokehouse to cure meats, brine to pickle them, a cool cellar to store vegetables, tubers, eggs, butter, and cheese; these were all that were deemed necessary. What could not be preserved by these simple methods was wasted and during the long winter months fresh food was somewhat of a luxury. Our cities were small, their food supply came mainly from the immediate neighborhood. The monotony of the diet often produced scurvy and related diseases and the failure of local crops, coupled with limited transportation facilities, caused occasional famines. These were the good old days.

The concentration of population in towns and the development of transportation have resulted in a complete transformation of the food manufacturing industry. Food must now be brought from great distances, and in order to do this economically it is necessary to operate on a great scale. Food can be handled in train load lots or in ship cargoes only by large business organizations. The individual farmer can not ship successfully over great distances.

It is natural for a business that is shipping on a large scale also to develop into a manufacturing industry. Indeed, in some instances, such as the beet sugar industry, manufacturing may develop an entirely new agricultural crop.

The result of the large scale development has been to lessen waste. It is less wasteful to slaughter a steer in a packing house and utilize all by-products than to slaughter on the farm and lose a great part of them. If the people as a whole do not seem to profit thereby as much as they might, it is not because organization does not conserve wealth but because the wealth thus conserved is not widely distributed.

The changes in the condition of the food industry that I have indicated make it necessary for the Department of Agriculture to broaden its scope. Its duties no longer end when it has shown how two blades of grass may be made to grow where but one grew before. It must recognize the fact that the food industry is no longer entirely a home industry. It must recognize the fact that the manufacture of food is being transferred from the home to the factory as surely as the spinning of flax and the weaving of cloth has been transferred from the home to the factory. The city woman who bakes her own bread is exceptional. Something is gained and something is lost. Though some may think the gain not equal to the loss, the change is upon us and must be met. It will not do to fold our hands and lament the good old days. They are past never to return. We must be up and doing to meet the new. The Department of Agriculture must and does recognize that most food passes through a factory on its way from the farm to the home. Let us be thankful that it is to the home that it mainly passes and not the restaurant; and that home-cooking is not yet altogether a lost art. As yet, the rich do not live entirely at restaurants and the poor entirely out of cans. I suppose you gentlemen are directly interested in getting as many people as possible to live out of cans. With this purpose the Department of Agriculture has no quarrel. It is simply the duty of the Department to see that the can is worthy of the consumer.

That Congress is fully awake to the changes of the times appears clearly from the fact that it has entrusted to the Department of Agriculture the control of the purity and the labeling of foodstuffs. Upon the Bureau of Chemistry naturally devolves the control of foodstuffs in the factory on their way from farm to home. The control of manufacturing methods is a very large part of its work. It is that part of its work in which you gentlemen are interested. Here is a valuable and insufficiently developed field of work for a government department.

The whole transformation of the food industry has been so rapid that abuses could not fail to creep into it. The old household methods are often bad when applied on a large scale. New methods had to be devised. Under the pressure of competition, these have not always been thoroughly tested. Thus trade practices have become established that are very hard to eradicate. It must be one of the duties of the Department of Agriculture to examine into all these processes, to improve the good ones, and discover substitutes for the bad. It must also be its function to develop methods of utilizing by-products and of using as food many things which are not now utilized.

I fear the average layman does not fully grasp the economic possibilities of chemistry in its relation to agriculture and the food supply. Every one is willing to grant its importance to metallurgy, to ceramics, to the paint, varnish and dye-stuffs industry. The layman is apt to dispose of chemistry in relation to foods with some joke about artificial food and the millennium when man shall live on a few concentrated artificial pills. While there is no prospect that we shall give up the joys of the table for a supply of capsules carried in our vest pocket, nevertheless chemistry has in the past and will increasingly in the future influence directly and indirectly our food supply. I need only refer to the production of sugar, of starch, of fertilizers and the utilization of agricultural by-products and wastes to indicate how dependent our modern food production is on the application of chemistry. Much more is to be expected in the future along these lines, and the Department of Agriculture hopes to do its share.

Much, too, is demanded of chemistry in finding new and improved processes for manufacturing the raw product of the farm into the product for the table. Were I to sketch but a part of the possibilities that here present themselves to any chemist that has given the matter any thought, I would soon weary you. However, I think I have said enough to indicate to you some of the lines along which the Bureau of Chemistry is to be developed. It is hoped to make the Bureau of Chemistry as useful to the consumer by advancing the manufacture of foods as the Department of Agriculture as a whole has been useful to the farmer. This is, to be sure, no new thought. Much work of this type has always been done in the Department of Agriculture, but it is hoped to make this work the dominant note of the bureau's policy.

Some there may be who will say: Why not let the manufacturer look out for himself, why should the people's good money be used to help him? One answer is that what helps one class of the community helps all. But there are other even better reasons. The work I have outlined is costly and difficult. Only the larger and richer manufacturing concerns can stand the expense and take the risk of experimenting. When they succeed the new process is either kept secret or patented. The result is to destroy the small manufacturer and reduce competition. When the government carries out these investigations the results are free for all to use.

Modern conditions are concentrating the manufacture of food into fewer and fewer hands. Many causes have been at work. Not the least of them has been pure food legislation. This bears very much harder on the small man than on the big corporation which can better afford to establish laboratories and employ experts. Those of you who are familiar with the situation will, I feel confident, agree with me that this is a fact. For this there can be no complete remedy.



Sanitary Preparation and Handling of Food



ADDRESS DELIVERED AT THE PENNSYLVANIA ASSOCIATION OF MASTER BAKERS BY JAMES FOUST—DAIRY AND FOOD COMMISSIONER OF PENNSYLVANIA

MR. PRESIDENT and Members of the Master Bakers' Association of Pennsylvania:

It gives me pleasure to meet you here today in response to the courteous invitation of your president. I shall, however, occupy but a few moments of your valuable time.

Too often the dairy and food commissioner is regarded as a policeman eager to find some one to arrest. Hence, his coming tends to arouse the same feeling of distrust among food dealers that the street arabs feel toward the officer of the law, at whose approach they scatter, with the shout, "Run, the cop is coming!" Properly viewed, however, the work of the commissioner is better performed when, by square, open dealing, consultation and persuasion, he secures a cordial observance of the law, than when, by wholesale prosecutions, he merely brings to punishment such law breakers as he can catch in the act. In other words, his success in the performance of his duties is to be measured by the improvement he secures in the purity of commercial foods and in the honesty of their labeling, rather than by the amount of the fines he collects.

It is, therefore, with pleasure that I meet you as an organized body of men who are performing a most important service for the people of this great commonwealth. For I am thus enabled to reach in a few moments a very large fraction of the bread and pastry makers of Pennsylvania, including probably all the leaders in this business.

As producers and dealers, you are met to discuss the problem of the baker's art and of the food seller's business. I judge that, like business men in other branches of the producing manufacturing and distributing trades, you are each concerned primarily in being able to measure your success by a yearly increasing custom and growing bank balances. But you will fall far short of your opportunities and responsibilities if you confine your attention to these elements of your affairs, and think too little of the quality of your wares and of your service to the public dependent upon you. Upon your skill and labor tens of thousands depend for the staff of life. According as you are careful and intelligent in the selection and use of your materials, the health of the people will be benefited or injured. To society the quality of your service is the important thing, not the profits you accumulate for your personal benefit.

The enforcement of the food laws of this and other states and of the nation has greatly improved the quality of the raw materials you use. Bleached flour has been banished; the lard, the butter and oleo you buy have been freed from adulteration; your spices are no longer loaded with worthless impurities; harmful dyes have been excluded; flavoring extracts standardized; fruit preparations more truthfully represented on their labels; and we are doing our best to protect you against bad eggs.

The examinations we have made of your products show few instances of the kinds of adulteration that occasioned the numerous bread adulteration laws of the Middle Ages. Now and then cases appear in which yellow dyes are used instead of eggs, mineral colors instead of chocolate coatings, and chemically preserved pie filling instead of pure fruit; but these cases represent only a very small portion of your output. The question of the weight of the loaf remains of general interest. But most important to the public mind at the present time is the sanitary quality of your wares. While the food laws of Pennsylvania impose upon me no responsibility of prescribing in detail the construction and sanitation of bake-shops, they do require me to be vigilant that foods contaminated by dust, flies and vermin are not sold for human food, and, in the performance of this duty I have been compelled to prosecute a number whose gross negligence in the protection of their wares from such sources of contamination has resulted in their products becoming unfit to eat. I desire to say that, while I shall instruct my agents to be constantly on the lookout for such cases of gross negligence, it will be highly gratifying if all members of your trade, including those connected with your association and all you can helpfully influence, shall become so careful in this matter that my agents shall find nothing of the sort requiring punishment for the protection of the public.

I have just said that the Pennsylvania laws are general rather than specific in relation to the sanitary condition of bake-shops; but this state may at any time follow the lead of other states that have enacted very stringent laws upon this subject. Why should you not, therefore, prepare fully to meet the probable requirements of such laws? And why should you not, as an organization, take steps to influence all in the trade to proper standards of construction and cleanliness? You who have been sufficiently progressive to form such an organization as this and to attend its meetings, have probably been also alert to meet the tastes and demands of your customers upon sanitary matters. You may need no action of this association in the adoption of set standards to guide your operations; but others do; and there can be no doubt that such standards adopted by you will go far toward establishing the confidence of the public in the cleanliness of your factories and storerooms, and will bring you many customers who are now kept away by uncomfortable doubts upon these matters.

Furthermore, if you adopt good, practical standards, they will undoubtedly form the basis of any legislation that may come in the future, and viewed from the standpoint of the advertiser, a voluntary progressive movement made by the trade itself will be far more valuable in giving confidence to the doubtful customer, than a readjustment made only under the compulsion of the law, and apparently with reluctance. Compulsory observances it is human to avoid whenever possible, and the customer knows this full well. Many of you no doubt will recall the reply of the Irishman to an acquaintance, who said:

"Pat, I hear you've lost your wife."

"Yis, sor."

"Was she resigned, Pat?"

"Resigned, is it! Resigned! She *had to be!*"

This subject is a fitting one for the consideration of an able committee, and the public would highly approve your early undertaking of an organized study of the matter. I think I need not add that I would gladly render you any assistance in my power.

Cotton Seed Crushers Condemn Oleo Tax.

The statute requiring a heavy tax upon colored oleomargarine was branded as flagrant class legislation, by the Interstate Cotton Seed Crushers' Association.

The following resolution attacking the federal tax was adopted:

"Whereas, There still remains on our federal statute books the unjust and iniquitous tax of 10 cents per pound on colored oleomargarine, thus taxing the only substitute for butter which the man of moderate means can now afford to purchase, and which is germ-proof and is more wholesome and cleaner than most butter produced, and

"Whereas, To tax a substitute for butter when colored to suit one man's sight and taste, and permit another form to be colored to suit another man's taste without tax, is unjust and un-American, and constitutes at one and the same time flagrant class legislation and unjust discrimination against the one product and in favor of the other; and

"Whereas, Such law is opposed to the declared policies of the present administration, as publicly announced by President Wilson to the effect that "the prices of articles that go on the backs of the people and into their stomachs must come down"; and

"Whereas, The high cost of living is now a most active question, the tax on any wholesome food product should be absolutely abolished; and

"Whereas, Such action would not only reduce the cost of butter—the price of which is controlled by the butter trust—but would provide oleomargarine at reduced prices to the consumer; therefore be it

"Resolved, That the Interstate Cotton Seed Crushers' association, representing practically the entire cotton seed crushing industry of the South, in convention assembled on this 24th day of June, 1913, at Chicago, hereby records its earnest protest against the continuance of this vicious class legislation, and calls on the Senators and members of Congress, and especially the Executive of the present federal administration, for such action as will give the people the relief they are entitled to."

By the Editor

The setting for the seventeenth annual convention of the American Association of Dairy Food & Drug officials was the quiet, peaceful city of Mobile. It would appear that the convention responded to this spirit for never in the history of this organization has there been held a more successful meeting judging it both from the standpoint of accomplishment and harmony among all of the delegates.

Strong resolutions were passed favoring uniform laws. A large number of states have adopted the Federal Law as a model for their state laws. The ultra radical officials who were placed in charge of the food control in some states are gradually being displaced by officials who view food questions from a broad standpoint. Police work is being discarded in favor of education. The slogan teach the public what is pure and the manufacturer will meet the demand is the sure road to accomplishment. The recent Wisconsin decision has proven the weakness of state laws which do not coincide with the national laws and we believe that state legislatures will hesitate to endorse any law which conflicts with National law. The arguments were few and far between the delegates agreeing on practically all of the points up for discussion, but it was good to hear the good old fashioned argument Commissioner Abbott of Texas, had with Commissioner Helme of Michigan.

Commissioner Wallis distinguished himself by uncorking a remarkably good address and one that strengthened his candidacy for president. When the test came he was elected by acclamation. We sincerely congratulate him on securing this honor.

Dr. Alsberg is gradually welding the State and Federal officials together in a closer relationship that cannot help but be of great benefit to all concerned.

When all is said and done the convention was a big success and it is certain that every delegate who attended was more than repaid for his time and expense. We hope that the attraction of Kineo Maine with its fine hotels and its fishing, boating, shooting and invigorating climate, and the prospects of "repeating on this year's success, will induce every state official to be there.

* * *

The suit the government is now prosecuting against the Southern Wholesale Grocers Association is nearly closed. You may think this suit ridiculous or spiteful or what you choose but don't forget that the outcome has a direct bearing on all association work.

* * *

No truer word was spoken than what Dr. Alsberg said about the label "Guaranteed under the Food and Drugs Act." This has been a bugaboo to honest manufacturers and a handle for rascals to flood the market with spurious goods. That action is to be had is assured. The whole association is back of a resolution to straighten this "crooked toe." Heavy machinery is slow moving nevertheless it does get there and when it does it is there.

* * *

Dr. T. J. Bryan, who has been the State Analyst of the Illinois State Food Commission for eight years, has just tendered his resignation to take effect September 1st. Dr. Bryan was appointed by Governor Deneen and during his term of office has acquired a wide reputation as an able chemist and expert scientific investigator. His investigations of milk standards, of sympathetic vinegars, and of soft drinks are accepted by chemists and manufacturers the country over as being the fairest and most exhaustive studies along those lines ever made by a state official. It is understood that Dr. Bryan as yet has made no plans for his future.

Dr. Bryan received his college education at Colgate University, Hamilton, N. Y., being graduated in 1893. He continued post-graduate courses at the university for four years, acting as instructor during that period at the same time, in teaching chemistry.

He spent the years 1899 to 1901 in the universities of Gottingen, Heidelberg and Frieburg, in Germany, receiving the degree P. H. D. at the last named institution.

On his return to this country he was instructor in Chemistry in the Wesley University, Connecticut. The following year he was instructor of Cemistry at Williams College, and then came to the University of Illinois, where he taught in the Chemistry Department for two years, from which position he entered the service of the State of Illinois.

* * *

We believe our readers will welcome several changes and additions which will be made in this magazine from now on. In the past we have confined ourselves almost exclusively to food laws those pending and those passed or killed. We have however, published a large amount of general information but it has been spread over a considerable period and therefore has not been the feature it should have been. Now we are going to broaden the field and take in trade questions. The executive food official is interested in the same questions that interest the execution of a food manufactory. New scientific methods are of equal value to the official chemists and to the chemists seeking new or better methods of manufacture for business houses. We say all our present readers and to prospective subscribers come into the American Food Journal with your comment. Make this magazine your forum for discussion of that which interests you most. If you disagree on some mooted question fight it out

here and not in the courts. We pledge ourselves to show both sides of every case. If you discover something that would be valuable for your fellow worker to know, pass it along. In his turn he will do as much for you. We will from time to time cover and discuss all lines of food manufacturing. Those manufacturers who are spending thousands of dollars each year to safeguard the purity and wholesomeness of their product will be boosted in this magazine to the best of our "boosting" ability. We are not muck-rakers or tearers-down. Our only excuse for existence is the help and service we can render you and it is on this basis that we ask for your support and endorsement.

* * *

At the risk of being considered a harp with one string we want to say that this issue of the American Food Journal contains the only official and complete report of the Food Officials Convention at Mobile. We have noticed in several magazines catering to the grocery and allied trades what purported to be addresses made at this convention. Inasmuch as we did not receive the final stenographic transcript, owing to the illness on the part of the stenographer, until Thursday, July 24, and as our stenographer was the only one allowed in the convention hall it is obviously an impossibility for any other statement to be authentic. The lateness of our receiving the final proceedings accounts for our late publishing date. The August number will be out August 15.

* * *

William McMurtie.—This great chemist who was one of the pioneers in early pure food congresses, died on May 24 at his home in New York city.

He was born in Belvidere, N. J., March 10, 1851, and was graduated from Lafayette College in 1871. He received the degrees of E. M., M.S. and Ph.D., and was appointed assistant chemist with the Department of Agriculture in Washington. He remained for two years, and in 1873 became chief chemist.

He represented the United States at the Paris Exposition in 1878, and later was appointed a special agent in agricultural technology in the Department of Agriculture, and while in that capacity utilized the results of his studies abroad in helping found the beet sugar industry here.

He was professor of chemistry at the University of Illinois from 1882 to 1888, chemist of the Illinois agricultural experimental stations and later chemist to the Illinois State Board of Agriculture. In 1900 he came to New York and became consulting engineer of the New York Tar-tar Company, and later accepted a second vice-presidency in the Royal Baking Powder Company.

He was formerly president of the Chemists' Club and of the American Chemical Society, and was also a member of the American Association for the Advancement of the Sciences and the Washington Academy of Sciences.

* * *

On July 27 Dairy and Food Commissioner Foust of Pennsylvania issued the following statement respecting cold storage:

On August 14 an act highly important to food consumers goes into effect, the Cold Storage Act of 1913. Here are some of the more important provisions of the law and the corresponding regulations:

Every person operating a cold storage warehouse must do so under a state license.

Every artificially cooled place where any food is held at 40° F. or under for 30 days or more, is a cold storage warehouse.

Fresh meats, fresh products therefrom, fresh poultry, fresh food fish, eggs and butter are the articles of food affected by the act.

Any such food entered in a cold storage warehouse thereby becomes at once cold storage food.

Each warehouse must be officially examined before a license to operate it shall issue; and no license can be issued if the warehouse is unfit in sanitary condition or equipment.

No food that is unwholesome may be placed in a cold storage warehouse.

The owner of the unwholesome food is held primarily responsible for such entry; but the warehouseman is not absolved from the exercise of reasonable precaution in accepting food entries.

All cold storage foods, or their containers, must bear the date of their entry into and withdrawal from cold storage.

Cold storage foods sold at wholesale must bear the label "Wholesome Cold Storage Food" printed in large type, and the date of original entry of the food into cold storage.

Such foods exposed for sale at retail must be accompanied by a similar label, and when sold, must be delivered in a wrapper bearing a similar statement, in large type.

Addition to or the changing or obliteration of any legally required mark is made a penal offence.

Foods withdrawn from cold storage for sale must not be returned to a cold storage warehouse.

Foods in cold storage found unwholesome upon official examination, will be tagged with a red tag "Unwholesome Food, Unfit for Use as Food."

Foods cold-stored beyond certain limits of time thereby cease to be legally salable for food purposes. The time limits are: Veal, 3 months; beef, 4 months; pork, sheep and lamb, 6 months; dressed fowl, drawn, 5 months; undrawn, 10 months; eggs, 8 months; butter and fish, 9 months.

Cold storage warehousemen must keep records of all food entries and withdrawals and report them periodically to the Dairy and Food Commissioner.

Agents of the Commissioner will maintain an inspection of the sanitary conditions, the accounting and marking of foods in cold storage warehouses, as well as examinations as to the wholesomeness of the foods offered for and kept in cold storage.

The Dairy and Food Commissioner is authorized to close warehouses not maintaining sanitary conditions.

The penalties are, for first offence, a fine of $500 maximum; for a second offence, a fine of $1,000 maximum, or a jail sentence of 30 to 90 days, or both.

The Commissioner suggests that the adoption by wholesalers of cold storage foods of a system of supplying to retail dealers the required large labels and wrapper labels would do much to protect the retailers and prevent needless injury to them and to the cold storage business in general.



Albumen Barred in Baking Powder



NEW RULINGS IN REGARD TO THE USE OF WHITE OF EGG IN BAKING POWDER.

IDAHO.

State Food Inspector Issues Order Against Sale and Explains Why.

Editor American Food Journal: For sometime past investigations have been in progress by the State of Idaho Pure Food Department as to the use of albumen or dried egg in baking powder. On July 25, a ruling forbidding its use was promulgated, the commissioner being firmly convinced that it performs no legitimate function in the composition of the baking powder, while its presence permits unfair and deceptive tests being made by means of which the innocent consumer is led to believe that powders containing albumen possess three or four times their actual leavening power. Speaking of this latter objection Inspector Wallis says the method usually employed is for a demonstrator to appear at a pure food show at a cooking class before merchants or even to visit the homes and there to perform the so-called water glass test. The baking powders are used one which contains albumen and the other none. Small quantities of each powder are placed in ordinary water glasses and water is added. The powder containing the albumen white of eggs foams and rises to the top of the glass while the powder which does not contain albumen scarcely rises at all. The demonstrator then assures his audience that the comparative leavening or raising power of the powders is correctly shown by the test they have just witnessed. The facts are that the so-called test is worthless and deceptive and is no indication of raising power of the powders. Oftentimes the powder which does not rise in the glass has a greater strength in baking than the powder which foams to the top of the glass. This foaming is caused not by greater leavening power but by the albumen used which increases the viscosity of the powder and forms a cushion which prevents the escape of the gas into the air. In the powder which contains no albumen the gas escapes into the air as it is formed and of course no foaming is produced. Some manufacturers who put albumen in their baking powder advertise that less eggs are needed in cooking with their baking powder. When it is understood that only about one four hundredth of the powder is albumen the fraudulent nature of its use and of such advertising is readily perceived. Order is issued that baking powders containing albumen are declared to be adulterated under the food laws of Idaho, and the sale of any such baking powder shall constitute an offense. Section 1134 of the revised codes of Idaho requires the names of all ingredients used in baking powders to be printed on the labels. There will be no difficulty on the part of any dealer in determining the character of the powder on his shelves and protecting himself against prosecution. The particular section of the Idaho Food and Drug Act under which action is taken is Section 5 Chapter 196 of the Session Laws of 1911, and reads as follows: Section 5—That for the purposes of this Act an article shall be deemed adulterated in case of food if any substance has been substituted wholly or in part for the article or if it be mixed colored powdered polished coated or stained in a manner whereby damage or inferiority is concealed or by any means it is made to appear better or of greater value than it is, rules against albumen in baking powder which contains albumen there has been such a substitution as the law prohibits. The essential elements of baking powder are the active leavening agents and the necessary filler to prevent accumulation of moisture and consequent deterioration of the powder. Albumen has no leavening power in the quantity used and it performs no legitimate function in the composition of the baking powder. It is added simply for purposes of deception and constitutes an inert ingredient substituted in part for the proper ingredients of a baking powder. The powder therefore which contains albumen is adulterated under the above quoted provision of the law. The very idea of inferiority used in the law suggests a comparison. Inferior to what it is plain that what the law means is inferiority to that degree of excellence or strength which the article of food is made to seem to possess by the mixing, etc., described in the statute the law intends that the actual strength or excellence of the food is to be compared with its seeming strength or excellence and if it be found that through mixing, etc., the article of food has been made deceptively to seem to possess a strength or excellence in excess of its actual qualities or as the law has it or if by any means it is made to appear better or of greater value than it really is then that food is adulterated under the above quoted section of the law. Why albumen is barred it is obvious from the results of the definite experiments heretofore described that baking powder to which albumen has been added falls squarely within this class. By the addition of albumen the powder when the water glass test is used is made to seem to possess a leavening power greatly in excess of its actual leavening power and thus the inferiority of its actual strength to its pretended strength is concealed by the mixing of the albumen with the powder.

In order that no hardship may result to dealers in this state and in order that all concerned may have an opportunity to dispose of the stock of baking powders containing albumen now on hand no prosecution for the sale in this state of such powders will be made prior to January 1.

Boise, Idaho, July 26, 1913.

JAMES H. WALLIS,
Commissioner.

NORTH DAKOTA.

By virtue of the statute which provides that this department may adopt or fix standards of purity, quality or strength, when such standards are not fixed by statute, and, further, in that baking powders shall be labeled in a form to be prescribed by this department, the following rulings and regulations are made which supersede all previous existing regulations with regard to baking powders.

1. All baking powders shall show the name and address of the manufacturer. This does not preclude the name of the jobber from appearing on the container.

2. The label must not contain any advertising or descriptive matter, other than directions for use.

3. There must be shown the true net weight.

4. Baking powders containing more than one part per million of arsenic, are illegal.

5. Baking powders shall contain less than five parts per million of lead to be passed.

6. To be standard, baking powders shall contain not less than 12 per cent of available carbon dioxide, and, when the amount falls below 10 per cent, the product shall be deemed in violation of the statute.

7. The presence of added albumin, egg albumin, etc., in baking powders is prohibited, and the sale of baking powders containing albumin shall constitute an offense under the Food Laws of North Dakota.

8. Baking powders shall not contain other harmful or deleterious ingredients.

9. Misleading or deceptive newspaper or other form of advertising is prohibited by statute.

10. Baking powders containing, as an essential constituent, aluminum compounds, shall be labeled as "ALUM." Or, containing acid phosphates, shall be labeled "CALCIUM ACID PHOSPHATE," or such other product as is used in the place thereof, thus: "This baking powder contains the following ingredients and none other: Sodium bicarbonate, calcium acid phosphate, alum and starch."

11. On and after October 1st, 1913, all baking powders coming into the state or produced in the state of North Dakota, shall conform with the foregoing regulations, but no prosecutions for products now in the state shall be made prior to January 1st, 1914.

(Signed) E. F. LADD,
Commissioner.
July 23, 1913.

TEXAS RULING NO. 26.

BAKING POWDER.

To Wholesale and Retail Grocers:

A food product is adulterated if it be below that standard of quality, quantity, strength or purity represented to the purchaser or consumer, or if it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.

A food product is misbranded if its label bear any statement, design, or device regarding the ingredients, which statement, design, or device shall be false or misleading in any particular.

Baking powders containing traces of albumen shall be considered by this department contrary to the above provisions of the law. Albumen is not a necessary constituent of baking powder. Its use in making powder is to produce a foam when water is added to it for the purpose of deceiving the consumer with respect to its quality. In this respect albumen serves a fraudulent purpose. This ruling is to take effect at once.

Yours very truly,
J. S. ABBOTT,

TEXAS RULING NO. 27.

"This department will permit the sale of baking powders containing albumin until the Federal Board has given an opinion on this question. Should this board rule that albumin may be used, such ruling will be accepted by this department. Our previous ruling on this question will be suspended until January 1, 1914, and no action whatever will be taken in regard to the sale of baking powder containing albumin to that date. However, the question may be finally settled it, will not effect the sale of this class of goods already in the hands of dealers at the time such settlement is made. (Signed)

"J. S. ABBOTT.

UTAH—BULLETIN NO. 21 (AMENDED JULY 10, 1913.)

The sale in the state of Utah of baking powders containing minute quantities of dried egg (albumen) is declared illegal. The albumen in these baking powders does not increase the actual leavening power of the powder, but by a series of unfair and deceptive tests, such powders are made to appear to the innocent consumer to possess three or four times their actual leavening power. Such powders, therefore, are adulterated under Section 736, par. 4, of the State Dairy and Food Laws, 1913, which reads as follows: "When deemed adulterated. If it is mixed, colored, powdered, coated, or strained in a manner whereby damage or inferiority is concealed."

In order that no hardship may result to dealers in this state, and in order that they may have an opportunity to dispose of the stock of baking powders containing albumen now on hand, no prosecution for the sale, in this State of such powders, will be ordered for a period of six months from the date hereof.

Per, Willard Hansen,
Commissioner.

Tea Must Go.

The shipments of teas belonging to Carter Macy Company, which has so long been a matter of argument between the Treasury department and the Carter Macy Company, are now to be either exported or destroyed.

Recent State Rulings

LAW PROHIBITING DESTRUCTION OF FOODSTUFFS.

The governor of the State of California has recently signed the following act: "It shall be unlawful for any person, firm or corporation to destroy any animal, vegetable or other stuffs, products or articles, in restraint of trade which are customary food for human beings and are in fit sanitary condition to be used as such." A penalty of fine or imprisonment or both is attached to the violation of this law.

SALAD OIL.—IDAHO.

In the matter of "Knight's Salad Oil," manufactured by Knight Packing Co., Portland, Oregon.

Shipments of this product have been seized in different parts of the State of Idaho by Deputy Inspectors of this Department on the grounds that it is misbranded under the Food and Drug Act. The label is printed, for the most part, in olive colored ink and contains the wording: "Knight's Salad Oil" in large bold faced type, followed immediately by the words, "Pressed from Cottonseed," in very small light faced type, so small that it could not be read by the purchaser unless taken close to the eye. Without a question of a doubt, the design of such a label is to mislead the consuming public to believe that in purchasing this product, they are buying "olive oil" which is generally used on salads. It is a notorious fact that prima facie salad oil means olive oil. This was held by the Judge of the U. S. Circuit Court in a case tried by the Government, where a quantity of salad-oil had been seized on the grounds that it was misbranded, in that said oil was not olive oil. The case was heard on appeal by the United States Circuit Court of Appeals for the Second Circuit, and the decision of the lower court upheld. Judge Lacombe, of this Circuit Court, states as follows:

"The Century Dictionary, Worcester's, Stormont's, Imperial, and the Encyclopedia all define 'salad-oil' as 'olive oil'; Webster's does not give any definition. We are satisfied that the trial judge quite properly charged, in the absence of any testimony of the sort suggested, that 'salad-oil prima facie imports olive oil; that is what the world has been accustomed to regard as salad oil.'"

Another case was decided in the Circuit Court of the United States for the Eastern District of Louisiana, where it was again held "that the usual acceptation of the term salad-oil does not include cotton-seed oil."

It is therefore held by this Department that the term "salad-oil" where used without another explanation on the label is olive oil. Where cotton-seed oil with olive oil is used, such mixture must be so declared on the label, as follows: "Salad-oil made from equal parts of olive oil and cotton-seed oil."

Where cotton-seed oil alone is used, that fact must be stated as follows: "Salad-oil made with cotton-seed oil," or "Pressed from cotton-seed."

In all cases, the words, "cotton-seed oil," must be in type as large as the word "salad oil," and there must be no intervening statement, design or device separating the two terms.

This department recognizes the fact that the public, generally, regard olive oil and salad-oil as synonymous, and that, in the absence of any other statement on the label to the contrary, or where the explanation is in such small type as to be deceiving, any other oil than olive oil sold as "salad-oil" renders the product subject to seizure under Section 1150 of the Revised Codes of Idaho, and the manufacturers liable to prosecution.

In making this ruling we do not claim nor desire the public to believe that cotton-seed oil is deleterious or harmful to the health of the user, but persons who go into the market to buy olive oil should not have foisted upon them cotton oil."

This regulation takes effect immediately and manufacturers, jobbers and dealers will govern themselves accordingly.

All products under seal in this State because of being misbranded on the grounds set out, will be released for proper labeling, upon the assurance to this department that such will be done.

JAMES H. WALLIS,
July 5, 1913. Commissioner.

IDAHO BLEACHED FLOUR BULLETIN NO. 17.

Following the policy of co-operating with the Federal Government in the enforcement of the food and drug laws, this Department on October 16th, 1909, issued a ruling similar to that promulgated by Secretary Wilson, of the Department of Agriculture, as embodied in Food Inspection Decision No. 100. This held that "flour bleached by nitrogen peroxide is an adulterated product under the Food and Drug Act of June 30th, 1906; and that the character of the adulteration is such that no statement upon the label will bring bleached flour within the law." A period of six months from the promulgation of this ruling was given manufacturers and dealers in which to dispose of their bleached product, after which prosecutions would be instituted for any violation of this ruling.

The Idaho food and drug act is based almost entirely on the National law, and all Food Inspection Decisions become, as issued, automaticaly part of the Idaho law; and this is proper, so that dealers and manufacturers of Idaho may have one set of rulings by which to govern their business.

After the Federal Government had issued this ruling, it seized 675 sacks of flour manufactured by the Lexington Mill & Elevator Company, of Nebraska, under the claim that it was misbranded and adulterated in violation of the provisions of the National Food and Drug Act. The case was tried in Kansas City before U. S. District Judge Marshal and a jury, and a verdict found in favor of the United States. The case was appealed, however, to the United States Circuit Court of Appeals, and the verdict of the lower court was set aside and a new trial ordered. The lower court held that the statute forbade the addition of any poison to any article of food, even though the quantity be minute, and the resulting injury to health from the particular article of food be incapable of measurement. The Court of Appeals, in reversing the case and ordering a new

trial, took the opposite view, and held that the poisonous ingredient must be added in such quantity that the jury must find that there is "possibility of injury to health due to the added ingredient and in the quantity in which it is added."

Since then the Attorney General of the United States has petitioned the Supreme Court of the United States that writ of certiorari be issued to review the judgment of the Circuit Court of Appeals, the question involved being "whether the Food and Drug Act prohibits the addition of any poisonous ingredient, in any quantity whatever, to any article of food in the discretion of manufacturers, if the quantity added in any one article of food is so small that it cannot be positively demonstrated that the particular article of food may be injurious to health." The defendant Milling and Elevator Company join with the Attorney-General in petitioning the United States Supreme Court to review the judgment of the Circuit Court of Appeals, submitting that the validity of the statute in question and its proper construction are questions of so grave a character and of such public importance as to justify the issuance of the writ.

Since the United States Circuit Court of Appeals decided that "there is no warrant in the statute for such a strained construction" as the trial judge placed upon it, viz.: "that if the added substance was qualitatively poisonous, although in fact added in such minute quantity as to be non-injurious to health, it still fell under the ban of the statute," there have been no further seizures of flour on the part of the United States Department of Agriculture, and no attempt is being made to interfere with bleached flour shipped in interstate commerce. In addition to this fact, all the states adjoining Idaho are permitting the manufacture and sale of bleached flour by the Alsop process, the least objectionable of all bleaching processes we believe, after a full investigation made by us. In addition, we find the majority of states are following the action of the Federal officials and not interfering with the sale of the bleached product, pending final action by the Supreme Court of the United States.

It appears to us that we are entirely justified in modifying the previous ruling of this Department to the extent that no action will be taken against the marketing of bleached flour pending final decision of the highest tribunal of the land.

Therefore, it is hereby ordered, that all sacks, barrels, or other kinds of packages whatsoever, which shall contain flour that has been mechanically or chemically bleached, shall have printed the word "Bleached" on the outside of said sack, barrel or package in bold Gothic letters not less than one inch in height. All bleached flour found in the possession of any manufacturer or dealer after December 1, 1913, without this inscription will be seized, as provided by Section 1150 of the Revised Codes of Idaho.

JAMES H. WALLIS,
Commissioner.

Louis C. Burr has been appointed manager of the Minneapolis branch of Butler Bros. Mr. Burr has been long in their employ, having begun as an entry clerk in 1888.

STATE FOOD COMMISSION. STATE OF ILLINOIS. CHICAGO.

Room 1627 Manhattan Building.
Telephone, Harrison 6672—6673.
Alfred H. Jones, Commissioner.
John B. Newman, Assistant Commissioner.
Dr. T. J. Bryan, State Analyst.
Charles F. McKinley, Attorney for Department.

July 25, 1913.

Calumet Baking Powder Co.,
201 East Ohio Street, Chicago.

Gentlemen:—In reply to your letter of July 25, 1913, in which you ask me to advise you what is the present attitude of the Illinois State Food Department towards the use of the whites of eggs in the manufacture of baking powder, will state that this question of the use of egg albumen in baking powder was under consideration some six years ago in the Illinois State Food Department and the use of same was permitted.

The present controversy with reference to the use of egg albumen in baking powder is based upon the idea that the addition of water to the powder in a glass causes a greater swelling than should be expected from a powder of this strength. The viscous nature of the egg albumen in solution results in the retention of all the gas evolved by such a test as just indicated, and after the gas is all evolved the bubbles will stand to a height in the glass dependent upon the available carbon dioxide that can be generated from the chemicals present in the powder. The height in the glass indicates the true strength of the powder, and does not in any way make it seem better or of greater value than it really is. The test shows its true value.

Therefore the use of the whites of eggs in the manufacture of baking powder is permitted by the Illinois State Food Commission,

Very respectfully,
ALFRED H. JONES,
Commissioner.

IOWA SANITARY LAW EFFECTIVE.

The new Iowa law requiring that all food not washable must be protected from dirt, dust and contamination generally, went into effect July 1. The new law will make a decided change in the general appearance of the grocery store. Instead of the usual barrel of cookies with the cover off, we will perhaps see the barrel, but instead of no cover, there will be a glass one giving the display a far more sanitary appearance.

And right here is where the groceryman smiles. It means the death of the "samplers" and more profit for him. How strange it will seem for many to enter the grocery store and passing by the cookies not be able to sample the contents of the barrel.

Of course it is not necessary for the grocer to keep everything covered up. The law says that all goods that are not washable must be kept in a covered case. Washable goods includes vegetables and practically all kinds of fruits.

SOUTH DAKOTA.

"The South Dakota Food and Drug Department is established to serve the people of this State and was certainly never meant to be used as a tool for the persecution of anyone. The laws creating the department and the various statutes which the Food and Drug Commissioner is charged to enforce furnish ample means by which violators of the law may be punished.

"I wish it understood that the present commissioner has no thought of overlooking any violations of our laws nor of following any half-hearted policy of law enforcement. On the other hand, with the additional inspection force available, I am sure that we shall be able to ferret out the transgressor much more effectively than has heretofore been possible.

"My policy in the enforcement of the law will be to see that its provisions are strictly obeyed, but at the same time I shall not attempt to punish dealers or others who can show that they are honestly trying to comply with the spirit of the pure food laws of the State."—*Guy*

Negotiations between the Cudahy Packing Co. and the Business Men's Club of Memphis are practically closed whereby the Cudahy people will build a big modern packing plant. The Cudahys agree, in event they do not find the killing plant profitable, to either return the property to the Business Men's Club or purchase it outright.

For more than 20 years various commercial clubs of the city have tried to secure a packing plant. This territory has never been a meat producing section.

No. 11093. Cottonseed Oil.

A report from an American consular officer in a European country states that a local business house desires to secure the representation of a large American manufacturer of cottonseed oil. The firm states that it is prepared to pay for the oil cash against documents under the usual contract of the London market. This firm deals largely in oil seeds, oils, and greases, and states that it is in a position to furnish satisfactory references. Correspondence may be in English.

No. 11104. Machinery for Sugar Plantation.

A report from an American consul states that a sugar company in a foreign country has recently purchased about 600 acres of land for a new sugar plantation, and it is desired to adopt up-to-date methods of cultivation, making use of the best type of trenching machines, motor plows, and sugar-crushing machinery. Such tools and machinery will be purchased through the London headquarters of the company; and American manufacturers who might desire to submit their catalogues, price lists, etc., and to bid for such business should do so by addressing the secretary of the company at the London address.

Birmingham, Ala., July 29.—Federal Judge Grubb today fined the Southern Wholesale Grovers' Association $2,500 for contempt of court in violating a decree issued in 1911, commanding the organization to abide by federal antitrust laws. President J. H. McLaurin of Jacksonville, Fla., was fined $1,000.

Recent Federal Rulings

ALL MEATS PUT UNDER THE FOOD AND DRUGS ACT.

Washington, D. C.—The most radical and far-reaching extension of the Food and Drugs Act probably ever made went into effect June 16th by the unanimous vote of the three Secretaries. On motion of Secretary Houston, acting under a far-reaching opinion of the Attorney-General, and Secretaries of the Treasury and of Commerce joined today with the Department of Agriculture in putting domestic meat and meat food products for the first time fully under the provisions of the Food and Drugs Act. For the first time, therefore, manufacturers of meat foods will now be required to comply with the Food and Drugs Act as well as the Meat Inspection Law.

This action was taken by revoking Regulation 39 of the Rules and Regulations for the Enforcement of the Act, which was adopted Oct. 17, 1906, and since that time has specifically exempted meats and meat food products and their producers from the operation of the Food and Drugs Act. Owing to this regulation, now revoked, the Department of Agriculture hitherto has been effectually prevented from proceeding against manufacturers of meat foods under the Pure Food Law, or ordering seizures and prosecutions for misbranding or adulteration of domestic meats.

The Revocation of Regulation 39 resulted from the fact that Secretary Houston could not understand why meat and meat food products were not a food in the sense of the Food and Drugs Act, or why the Department of Agriculture could not seize bad meat or adulterated or misbranded meat once it had entered interstate commerce. He, therefore, requested an opinion from the Attorney-General in a letter in part as follows:

"I am informed that up to the present time meats and meat food products have been practically exempted from the operation of the Food and Drugs Act on account of Regulation 39 of the Rules and Regulations made by the three Secretaries for the enforcement of this Act. * * * I am advised by the Solicitor for this Department that there is nothing in either statute indicating an intent on the part of the Congress that meats and meat food products should not be required, in common with all other articles of food, to meet the tests for adulteration and misbranding prescribed by the Food and Drugs Act. * * *

"I deem it a matter of great importance to the public that the Food and Drugs Act should be given full force and effect, and it is my purpose, if you shall decide that the provisions of this remedial statute are applicable to meats and meat food products prepared under the Meat Inspection Law, to propose to the Secretary of the Treasury and the Secretary of Commerce that Regulation 39 be revoked."

Attorney-General McReynolds, on May 24th, answered with an opinion in part as follows:

"I have carefully examined the opinion of the Solicitor * * * and I agree with him that your question should be answered affirmatively.

"Both statutes had the common purpose of preventing the shipment in interstate and foreign commerce of impure or unwholesome foods.

"The Act (Meat Inspection) * * * is enforced only by criminal action; it does not provide for the seizure of the meats themselves, nor does it reach meats which have become spoiled after leaving an official establishment, but which are still in interstate commerce.

"The Food and Drugs Act, on the other hand, accomplishes its purpose, not by an inspection preliminary to transportation * * * but by making criminal the interstate commerce in adulterated or misbranded foods and drugs. Provision is made for collecting and analyzing samples of foods and drugs, and in addition to punishing violators of the law, authority is given to seize and destroy the adulterated or misbranded foods themselves.

"While these two statutes overlap to some extent, neither is inconsistent with the other, nor is anything contained in them to indicate that either was intended by Congress as a substitute for the other. I am of the opinion that the Acts are supplementary to each other, and that both apply to the same articles of food wherever their language so indicates."

"That the Food and Drugs Act applies to meats and meat food product is clear from its language. For instance, in Section 6, it is said:

"'The term "food" as used herein shall include all articles used for food, drink, confectionery, or condiment by man or other animals, whether simple, mixed, or compound.'

"Section 7 provides that, for the purposes of the act, an article shall be deemed to be adulterated, in the case of food:

"'Sixth: If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.'"

The official action of the Board of the Three Secretaries is in full as follows:

"APPLICATION OF REGULATIONS.

"Regulation 39 of the Rules and Regulations made in pursuance of the authority conferred by Section 3 of the Food and Drugs Act, June 30, 1906 (34 Stat. 768), which reads as follows:

"'Regulation 39, Application of Regulations.

"'These regulations shall not apply to domestic meat and meat food products which are prepared, transported, or sold in interstate or foreign commerce under the meat-inspection law and the regulations of the Secretary of Agriculture made thereunder,' is hereby revoked.

"W. G. McADOO,
"Secretary of the Treasury.
"D. F. HOUSTON,
"Secretary of Agriculture.
"WILLIAM C. REDFIELD,
"Secretary of Commerce."

The revocation of Regulation 39 now gives the Department of Agriculture the power to treat meats and meat food products exactly like any other food in interstate commerce. The change, however, in no way interferes with the powers of the Department of Agriculture conducted under the Meat Inspection Law. It simply brings meat under the Food Act, as well as under the Meat Inspection Law, and thus gives the government control over meat foods, not only in the Federally inspected establishments, but after the meat product has left such establishment on an interstate journey.

Under the Meat Inspection Law, meat inspectors have absolutely no power to seize meat or meat food products that have become bad or have been adulterated after they have left a Federally inspected establishment. The only remedy possible under the Meat Act is to proceed criminally against anyone selling bad meat, but even in this event, bad meat cannot be seized nor its sale prevented.

The Department of Agriculture can now seize and prevent the sale of bad or adulterated meat once it has crossed the state line and remains in interstate commerce. In case spoiled meat again reaches a Federally inspected establishment, it of course comes under the jurisdiction of the Meat Inspection Law, and can be destroyed, as heretofore has been done. Under the new decision, the government can now control meat foods in interstate commerce from the hoof to the retailer, subject only to the limitations of the power of the Federal government in interstate commerce. Under the opinion of the Attorney General, and the action of the three Secretaries, the Department of Agriculture is empowered to require all manufactured meat products to conform fully to its labeling regulation, and can enforce its penalties, prosecutions, and seizures for misbranding and adulteration. The definition of "Misbranding," under the Food & Drugs Act, is far more stringent than the rule preventing the sale of meat products under a false or deceptive name under the Meat Inspection Law. Section 8 of the Food and Drugs Act, to which manufacturers of meat must now conform, provides that the term "misbranded" shall apply to "all articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, and to any food product which is falsely branded as to the State, Territory, or country in which it is manufactured or produced." The Department of Agriculture can now also apply fully to meat products its rules regarding statements as to weight or volume or number of pieces in a package required of other foods.

A committee has been appointed by the Secretary of Agriculture to provide an effective plan for co-operation between the Bureau of Chemistry and the Bureau of Animal Industry to exercise control to the full extent authorized by law over domestic meats and meat food products. With effective co-operation between these two Bureaus, the seizure arm of the Food and Drugs Act it is believed will be a powerful means of regulating traffic in unsound meats.

IMPORTS OF OLIVE OIL NOT ADULTERATED.

Following the receipt of several inquiries as to whether a large part of the olive oil imported into the United States is adulterated with cotton-seed oil, the Department of Agriculture has made a special investigation into the state of the olive oil admitted. The government's interest in the matter is twofold: first, to protect the people from getting adulterated olive oil; second, to protect the reputation of olive oil in the interest of olive oil producers in California, Arizona, and other olive growing sections. Since 1900, the Department, through its various port laboratories, has examined samples from 2,149 importations of olive oil. Of these, only ten were refused entry, and only three of these were refused entry for containing cotton-seed oil. These cotton-seed oil adulterations date back to 1908, when two shipments were found to be adulterated, and 1909, when one shipment was found to be adulterated. Since that time, there has been no shipment which has given evidence of cotton-seed oil adulteration. In 1910, seven shipments of olive oil were refused admission because adulterated with peanut oil, and since that time there have been no cases discovered of either cotton-seed oil or peanut oil adulteration. The addition of cotton-seed oil to olive oil, the government specialists report, is very easily detected. Indications therefore are that all olive oil admitted to the country and branded as olive oil has been pure olive oil, and has contained no cotton-seed or peanut oil. Occasionally the government discovers shipments of sardines in which the olive oil contains some cotton-seed oil. The experts point out that it would be illogical for the importer to bring into this country olive oil adulterated with cotton-seed oil, and pay a duty of 50 cents a gallon on the cotton-seed oil that is contained in the mixture. Similarly, nut oils are admitted under the tariff act, and the specialists say that it would be absurd for an importer to bring from Holland olive oil adulterated with peanut oil and pay a duty of 50 cents a gallon on the mixture, when he could bring them over separately and avoid paying any duty on the nut oil.

TABLE CELERY FOUND TO CONTAIN COPPER.

The Department of Agriculture, acting on the complaint of Dr. W. C. Woodward, Health Officer of the District of Columbia, and the health officers of other states, has found by careful analysis that a great deal of table celery which came to market during the last season contained slight amounts of copper in the form of dried Bordeaux mixture (lime and copper sulphate) which farmers have to use to spray celery plants to prevent the destruction of the crop by blight. Celery not sprayed with Bordeaux mixture during its growth, according to the Government specialists, is liable to reach the market in a state of partial decay.

The use of salts of copper in food products was decided by the Referee Board to be deleterious to health. Under Food Inspection Decisions 148 and 149, the importation of canned fruits and canned vegetables greened with copper has been stopped. This is parallel to the laws of France, where the use of copper vessels is forbidden in packing food products.

The proof of the presence of copper in raw celery was obtained by analysis of samples of celery offered for sale in the markets of the District of Columbia and other cities. Analysis of four different samples of celery showed that before washing, the edible part of the outside stalks contained from 9.1 to 29.2 parts of copper per million, or less than 1/6th to 1/2 grain of copper per 2¼ lbs. of celery. The copper in the inside or heart of stalks was much smaller in amount, and ranged from 3.3 to 10.3 parts per million. In the leaves of the celery, however, which are the parts of the plant especially sprayed with Bordeaux mixture, there were found from 157.6 to 288.4 parts of copper per million parts. The chemists found that most of the copper in the inner and outer stalks disappeared on washing. After washing by hand or with a brush, there was only from 3.9 to 9 parts per million in the outside stalks, and from 1.4 to 3 parts per million in the inside stalks or heart. These quantities are infinitesimal, and mean that a person would have to eat from 9 to 18 lbs. of celery daily to reach the amount of copper which, if daily consumed, would, according to the experts, have any direct effect on the health.

As soon as the presence of copper on celery was determined, investigations were at once begun to find its source, and to determine ways of avoiding it. The copper, it was found, resulted from improper methods of using Bordeaux mixture on the part of celery growers. At the same time, it was found that the use of Bordeaux mixture, according to the investigations of the Bureau of Plant Industry, is absolutely essential to the growing of celery in many sections of the country, especially in Florida. The Department, however, found that the spraying apparatus used by many celery growers does not operate at a sufficiently high pressure to make a fine spray or mist. As a result of this faulty apparatus, the Bordeaux mixture is applied in a number of fine streams instead of a mist, and these instead of merely settling on the leaves and killing the insects, run down between the stalks. As a result, the mixture accumulates at the base of the plant, and is not washed out by the rain. This sometimes gives a green appearance to celery, which causes many people to think the color results from Paris green, whereas the green tint is simply a copper-stained lime.

The Department of Agriculture has issued a circular requesting that all spraying of celery plants with Bordeaux mixture be done with efficient apparatus working under high pressure—one hundred pounds or more. Spraying should be stopped when the leaves are covered with fine drops, and before these begin to run down the stalks and accumulate in the base of the plant.

The Department of Agriculture at the same time has issued a warning to consumers to break bunches of celery open and wash and scrub the stalks thoroughly before they are eaten. It also has warned the public against eating the leaves of celery upon which the dried Bordeaux mixture clings. According to the chemical experts who made the analysis, a careful washing of celery would remove practically all of the copper resulting from dried Bordeaux mixture, or reduce the amount present to such a small quantity as to be entirely negligible.

Dr. H. M. Loomis of San Francisco is temporarily acting as a member of the Board of Food and Drug Inspection.

The Kentucky Agricultural Experiment Station dedicated a new addition to their Station Building.

W. D. McNally has been appointed chief chemist of the new laboratory established to aid the Cook County, Illinois, coroner's office in tracing food poisons.

Prof. Ira Remsen has been made President Emeritus of Johns Hopkins University.

"A gain of 400 per cent in the output of canned tuna from Southern California this season, as compared with last season, is the estimate of the managers of the four canneries," says a Los Angeles report. "About 9,900,000 pounds of canned tuna or 220,000 cases will be canned this season, which is just beginning. Last season about 2,000,000 pounds were canned. Two canneries are located at San Pedro, one at San Diego and one at Long Beach."

A report from an American consular officer in Germany states that he has been requested by a local coffee broker to secure the name of the manufacturer of Washington's prepared coffee. This preparation is understood to be a direct extract of coffee, for which the inquirer thinks a considerable demand might be created in that country.

A report from an American consular officer in a European country states that a local business firm wishes to correspond with American manufacturing chemists with a view to securing an agency on a commission basis. Correspondence should be addressed to the firm direct, and may be in German or English.

The United States has a larger number of food animals than any other country of the world. Of cattle alone, the number in the United States is 56,000,000, while Russia in Europe and Asia has 51,000,000; Argentina, 29,000,000; Brazil, 25,000,000; Germany, 21,000,000; and the United Kingdom, 12,000,000. These figures are in round terms and for the latest available year. Of sheep, the United States has 54,000,000; Australia 92,000,000; Russia, 85,000,000; Argentina, 67,000,000; the United Kingdom, 30,000,000; India, 26,000,000; Uruguay, 26,000,000; and New Zealnd, 24,000,000. Of swine, the United States has 61,000,0; Russia, 13,000,000; and Germany, 22,000,000. The total number of food animals (including in this term merely cattle, sheep and hogs) was, at the latest available date, in the United States, 169,000,000; Russia in Europe and Asia, 149,000,000; India, 140,000,000; Australia, 104,000,000; Argentina, 98,000,000; Germany, 51,000,000; the United Kingdom, 46,000,000; and France, 39,000,000.—Department of Commerce.

Washington Correspondence

IT speaks well, or ill, just as the reader cares to take it, to mention the fact within the month Attorney General McReynolds has made one of the most important rulings any attorney general has ever made and the country has not given the subject matter of the ruling a second thought. He held that the food and drugs act, the mis-called pure food law applies to meat, notwithstanding the fact that President Roosevelt held that because slaughtering is done for interstate trade under the meat inspection law, the food and drugs act did not apply.

In effect President Roosevelt decided that because there is inspection at the time of slaughter, the general government had performed its whole function. Attorney General Reynolds holds, in effect, that while the meat inspection law guarantees cleanliness and healthfulness at the time of slaughter, the federal government is under still another obligation, which is that the meat shall be wholesome when it is sold to the consumer, if the meat has been carried from one state to another.

That decision means infinitely more work for the department of agriculture. Secretary Houston realizes that fact and is preparing himself for the task of discharging the duty to the public by taking the advice of experts on the subject. He has appointed a committee composed of Dr. Marion Dorsett, the man who found how to make hog cholera serum from the tail of the pig, chief of the vio-chemic division of the bureau of animal industry; Lucius Tolman, chief of the food inspection division of the bureau of chemistry, and W. Parker Jones, assistant solicitor, a committee to prepare regulations for inspection of meats after they reach the hands of retailers.

The first thing necessary is complete co-operation between the bureau of chemistry, which reports on facts relating to the enforcement of the food and drugs act, and the bureau of animal industry, which has charge of the inspection at the slaughter houses.

Hitherto meat inspection has been from hoof to the can. Hereafter it is to be from the slaughter house to the hands of the consumer. In the estimation of many people the fact that the inspection stopped when the meat was put in the can or into the refrigerator car has been one of the glaring weaknesses of the federal government's scheme of controlling the meat trade to the end that only wholesome meat products are sold. President Roosevelt took the position, consciously or unconsciously it is not material now, that if the meat was all right at the time of slaughter the federal government had done all it should or could do. Where he got that advice is not material either.

Hereafter every food and drug inspector will have as part of his duty that of scrutinizing every container in which meat in any form is set before the public. In the same way he is authorized to follow a piece of meat bearing the government's tag "Inspected" and passed to the block upon which the retailer does his cutting. The chances are that jurisdiction will be claimed over every such piece of meat until after it has been cut up. That is when a quarter of beef is delivered to a retailer, the federal food inspector will be expected to see to it that it is in fit condition to be sold.

Until Attorney General McReynolds rendered his opinion that the food and drugs act applies to meat food products the food and drug inspector might see a quarter of beef that smelled unto heaven and be powerless to stop the sale of it. True he might report the facts to the local inspector acting under the authority of some state but, as a rule, state officials are chary about undertaking to exercise jurisdiction over anything bearing the stamp of the federal government. That wariness made it possible for the unscrupulous retailer to use the federal stamp for a shield.

This is not taken to be an assertion that the big packers of the country have sanctioned anything of that kind. It is merely pointing out the possibility of the federal stamp being used as a shield for doing something that hereafter will be a violation of the food and drugs act. That is it will be a defined violation. If it has ever been a violation of the law, the mere fact that the attorney general has decided that the food and drugs act applies is not legislation. It is merely a recognition of a fact that was either heretofore ignored or not definitely ascertained. In other words the decision does not create additional law.

One of the questions the committee must consider is as to the effect of the proposed free admission of meat. It will be necessary for the board to decide whether South American countries have such inspection at the time of slaughter as will guarantee the cleanliness and wholesomeness of the meat that the Argentine or any other South American country might undertake to send in.

The food and drugs act permits the importation of only such meat as, in the opinion of the secretary of agriculture, has been slaughtered under conditions of inspection as will guarantee that it is as clean and wholesome as meat produced in this country. Up to this time the tariff duties levied on fresh and smoked meats has made it unnecessary to consider that question. The South Americans have sent their meats to markets where there was either no tax or a much lighter one than that levied at American custom houses.

If Secretary Houston comes to the conclusion that the inspection laws of the Southern republics are not such as to warrant the importation of meat from them, then the free listing of meats will be of no effect in reducing the cost of living. The South American meats will be shut out as effectively as if prohibitive duties were imposed. In fact the prohibition will be absolute until such time as they provide inspection that will be satisfactory to this country.

But the greatest practical question to be decided will be as to how long canned meat remains fit for human food. There has never been an answer to that question. Wheat that was buried with ancient Egyptians has sprouted and grown. Men have eaten mastodon steaks and performed other gastronomic feats that do not appeal to the ordinary human being, but no one has set a limit beyond which canned meat ceases to be food and becomes something else.

A few years ago an indignant Louisiana man sent the remnants of a can of potted tongue to the bureau of animal industry. He had found what he said was a dog's tooth in the mess which consisted of a piece of tongue cut from the end by which the tongue was attached to the animal. Dr. A. D. Melvin, chief of the bureau, was somewhat perturbed until he got a look at the can. He saw that it had been packed six or eight years before the day on which he saw it. That meant it was packed years before the law he was administering went into effect.

When he looked at the contents he laughed again. He found that what looked like the teeth of a dog were things that grow on the tongue of every animal of the bovine kind. A careless trimmer had overlooked them. To the eye of the ordinary man they look much like the teeth of a dog. If the indignant Louisiana man had merely touched the things that disgusted him he would have found that they were flesh, and therefore not teeth.

Although the can had been opened, the tongue was still in good condition when it arrived here. But for the carelessness of the trimmer, it would have been eaten with relish.

That incident shows how hard it is going to be to determine when canned meat becomes unfit for food. It is not certain that it ever does reach that stage. There are, however, a good many folks who want to be assured that what they are eating was packed within a century of the time when they are doing the eating. To satisfy them it may be necessary for the department to make archæological researches.

The extension of the food and drugs act to cover meats means there must be close co-operation between the bureau of animal industry and the bureau of chemistry. Under conditions that prevailed before Dr. Wiley's resignation, co-operation between those bureaus would have been impossible because Dr. Wiley's fellow scientists in the department would not subordinate their views to his and when Dr. Wiley could not have his own way, his inclination was to start something. Armed neutrality could have been the best condition that could possibly prevail with him in the department. But Drs. Alsberg and Melvin will co-operate so there will be the minimum of friction, which is what those who will be subject to the double inspection will desire.

Another matter that is going to greatly increase the work of the department is the net weight law. That does not go into effect until early next year but Secretary Houston has also appointed a committee of experts to deal with that subject and prepare suitable regulations. That committee consists of Dr Alsberg, chief of chemistry; F. M. Halstead, chief of the custom division of the treasury, and L. A. Fischer, one of the physicists of the bureau of standards of the department of commerce.

Many food manufacturers have already begun putting the net weight on their packages. The extra time allowed is to give those who have large stocks

of labels on hand to use them and get new ones against the time when it will be necessary for them to tell how much of the product that is being sold is to be found in the container.

Thus far the new administration is following the rules and regulations of its predecessor and the chances are that the only changes that will be made are those made necessary by the McReynolds ruling and the net weight law.

Secretary Houston desires not only that the meat packers shall be subject to the meat inspection and food and drugs acts, but he is determined to have independent reports on the efficiency of the meat inspection service as carried on under Dr. A. D. Melvin. He realizes that neither he nor Dr. Melvin can be in personal touch with the inspection force. Nor can the supervisory officers of that force be always infallible.

On the theory that outside remarks on the effectiveness of the inspection service, the secretary has designated three college professors to inspect the inspectors in the principal packing house centers. There have been criticisms of the inspection service. The secretary wants to know, before there can be any attempt to start more sensationalism as to conditions in the packing houses, how much or how little truth there is upon which the criticisms are founded. It is suspected that a good many of them are based on the assumption, hitherto incorrect, that the food and drugs act as well as the meat inspection law, applied to the meat trade of the country. The college men who are to inspect the inspectors are:

Dr. W. T. Sedgwick, professor of bacteriology and sanitary engineering in the Massachusetts Institute of Technology, is to investigate plants at Boston, Worcester, and Brightwood, Mass., and New Haven, Conn.; Dr. V. A. Moore, professor of pathology at Cornell University, will go to Philadelphia, New York, Buffalo, and Pittsburgh; and Dr. J. A. Connaway, of Missouri Agricultural College, to Kansas City, St. Louis, and St. Joseph, Mo., and the national stock yards, Illinois.

"It is my desire," said the Secretary in his instructions to the experts, "that you report to me fully and frankly the conditions as you find them at the various establishments, together with such recommendations looking to the improvement of the service as in your judgment may seem best."

In a statement announcing his plan Mr. Houston said:

"This new inspection of meat-packing establishments by outside experts, under temporary assignment by the government, will in no way supersede or lessen the work now being done by the bureau of animal industry. The idea is simply to have the inspection and regulatory work checked up by competent authorities who will report directly to the Secretary."

Quaker Oats to Be Rolled.

The latest victim of the Sherman law are the Quaker Oats and Great Western Cereal Companies. The Government claims that these companies control 90% of all the oatmeal products handled in this country, and therefore constitute a monopoly in restraint of trade under the Sherman Law.

C. O. D. Parcel Post.

On July 1st, the C. O. D. department of the Parcel Post will go into effect.

Grocers Association Sued.

The government procedure against the Southern Wholesale Grocers Association for alleged contempt of court began July 7th.

Youngstown Gives up Food Show.

The Youngstown Retail Grocers have dropped their plans for the Pure Food Show because of their inability to find suitable quarters in which to hold it.

Portland Food Show.

The third Pure Food and Industrial Exposition, under the direction of the Portland Grocers and Merchants Association will be held at the Armory Sept. 8th-20th. Anthony N. Tremp has assumed the management of the exposition.

Never Again.

C. G. Keller, the Rexburg, Idaho, man who was arrested some time ago on a charge of libel against the State Pure Food Department, pleaded guilty and paid a fine of $100, which shows they can't "put anything over" on Commissioner Wallis.

Government Buys Margarine.

Late in May the Government closed contracts with different manufacturers with more than 115,000 pounds of margarine for use in the Old Soldiers' Homes in Ohio, Kansas, Indiana, Virginia, Tennessee, California, Maine and Illinois.

Another "Square" Manufacturer.

Penick and Ford of New Orleans are the latest addition to the ranks of the "Square Deal" manufacturers. The "Free Deal" has long been a part of our system of distribution, but manufacturers generally are seeing the danger to themselves in using the "Free Deal," and one by one they are substituting a straight net price for large and small dealer alike.

Reducing Egg Breakage.

To reduce the enormous breakage of eggs in transit, which yearly causes a loss of millions of dollars to producers and raises the price of eggs for consumers, the United States Department of Agriculture, through its bureau of chemistry, is conducting extensive experiments to determine the safest manner of packing eggs for long and short shipment by rail. The waste from the breakage of eggs, according to the Department, in New York City alone, in 1909, was over 137,804,768, or over 11½ million dozen, out of a total consumption in 1909 of 127,689,500 dozens of eggs. In other words, about 9 per cent of all eggs received in New York were cracked, and of these a large number were unfit for food use.

Peaceful Post.

C. M. Post of "There's a Reason Fame," spoke to the National Association of Manufacture, and emphasized the value to the manufacturer of having peace and contentment among his employees. He said:

"Workmen do not want to be subjected to a lot of gifts and charities, that would place them under lasting service and obligation to the donor, their employer. The American workman wants an honest first class price for his labor and then wants to be let alone, and to follow his own individual ideas as to how he should live and use his money. Pay men the highest standard wages and they will pretty well take care of themselves, and meet the boss with a straight up head, clear eye and the honest respect that passes from man to man. Manufacturers are responsible to their associates and stock holders for the successful conduct of their institution, but in a higher way they are responsible for their standing before the public, as men who recognize certain Divine principles, in the management of the world's work and who stand steadfast as a rock for the carrying out of these principles —justice, integrity and humanity."

Horticulturists Want New Laws.

A fund has been contributed by the American and Pacific Coast Associations of Nurserymen, to secure uniform horticultural laws in all states.—New York Journal of Commerce.

Sulphur.

A new sulphur field of importance is being developed in Texas. The field thus far explored comprises 110 acres, and engineers estimate that it contains 17 tons of sulphur, worth approximately, $340,000,000. The field was discovered by accident while boring for oil, and the deposit is announced as the biggest in the country. The sulphur is melted in the ground by hot water and the liquid sulphur is forced up by compressed air. At the surface the sulphur solidifies and is ready for market netting 99.98% pure.—N. Y. Journal of Commerce.

Scarcity of Bees in England.

Men have been employed to do the work of bees on a large number of fruit farms in the south of England—transferring the pollen from blossom to blossom—in order to insure the crop. Almost the whole of the fruit-growing section is infected with what is known as Isle of Wight disease, which is destroying bees by the million.

In Buckinghamshire 90 per cent have been carried off by the plague, and in some sections the bees have entirely disappeared which would mean no crops unless other methods of blossom fertilization were undertaken.—Riverside Press.

Kaiser to Become Manufacturer of Oleomargarine.

Kaiser William of Germany is to start an oleo manufactory, according to advices from Berlin, and is to bloom forth as a fullfledged manufacturer in Prussia.

Prussia has no margarine factories despite the ever-increasing demand for it among thrifty Germans, and the Kaiser's advisers, ever on the lookout for a "good thing" for their master, have seen the financial possibilities in supplying the want.

Oleomargarine manufacturers are highly elated at this imperial championing of their product, which quite recently the agrarian party in the Reichstag suggested should be dyed in order to disgust purchasers from persisting in consuming so unwholesome a product. —Michigan Tradesman.

Indiana Correspondence

WHILE President Wilson and Congress are perspiring these days because of the sugar problem in the tariff bill and the "sugar lobby" a little county board of review in Marion County, Indiana, is causing more of an unroar among big sugar refining houses and sugar dealers in the state than the board has stirred up in other controversies in years. The proposed action of the board to tax sugar that has been in storage here during a period of twenty years may result in such big companies as the American Sugar Refining Company of Chicago packing up sugar bags and baggage and treking elsewhere to establish their big storage houses. In case such a proposal as the board now makes is carried through representatives of the sugar houses are promising that their companies will move their storage houses, that the Indiana merchant will be compelled to buy sugar in much larger quantities than heretofore and that he will pay a higher price for it than formerly.

All of these threats are making no dent in the resolution of the members of the taxation board, they say, and they intended to go straight ahead with the valuation and taxation of the stored product. Some of the larger sugar refining companies have held large quantities of **the** product in storage here for a quarter of a century. The product never before has come in for taxation. Representatives of the sugar companies are contending that the sugar has been taxed elsewhere or is to be taxed eventually on the shelves of the Indiana merchants. The argument may finally go to the state board of tax commissioners for solution. The local board has the right, if it so desires, to place omitted property on the tax duplicates for a period of twenty years back. This would make the amount of taxes payable by the sugar companies enormous. if the board decided to place the stored product on the delinquent or omitted tax duplicate during the entire period Indianapolis has been used as a storage house. A representative of Arbuckle Brothers in New York told the board that he believed the jobbers in Indianapolis would rather make up the taxes on the stored sugar themselves than see the refining companies move their stored supplies to other points.

Indianapolis cafe owners and managers have been thrown into a real dilemma because of recent "uplift" orders that have gone out from the police department regarding a ban on music in any of the local cafes. Superintendent of Police Hyland recently gave orders to his patrolmen to stop all music in rooms adjoining saloons. Nearly all the Indianapolis cafes adjoin the bars of the hotels in which they operate and the biggest and best food-handling establishments in the city have been stopped from allowing music during the open hours of the cafes. Such a howl went up from the patrons and the managers of the cafes over the order that the superintendent said he never intended that hotel cafes and large eating establishments should come under the purview of the order.

Patrolmen and detectives, however, continued to call on managers of the high class eating houses and compel them to stop the soft strains of the "eat melodies." The matter may find its way to the courts.

The finance committee of the Indianapolis city council has voted to report favorably an ordinance calling for a heavy appropriation for the pure milk fund of the city board of health. It will mark the first really big step toward saving babies' lives in this city that has been taken for some time. Because an economy wave has struck the city council it is possible that the milk ordinance will not go through, but if it does the money will be used to establish a number of additional pure milk stations throughout the city. The Children's Aid Association of the city for many years has done a heroic work in furnishing pure milk to the children of the city.

Isidor Wulfson, much heralded on the front pages, because of his spectacular methods of battling for the Indianapolis housewives in his capacity of city weight and measure inspector, played another of his trump cards recently in police court when he charged that many of the ice companies and drivers in the city had entered into a combination to refuse to sell ice to housewives, who asked that the ice be weighed on scales other than those of the ice companies. Wulfson's statement was taken up by the local press and given much publicity. Practically all of the leading ice companies of the city asserted that their drivers had no such instructions. The present heat wave has caused much suffering in the city and throughout the state and a shortage of ice is predicted if it continues much longer.

Exposure of fresh meats and the sale of dirty meat conspired to bring the total number of arrests by the state's food and drug department during May up to ten, the highest number of food-handling establishments that have violated the state's food laws and been apprehented by the state department for some time. Six of the ten were arrested in Indianapolis, five of them being fined $10 and costs for exposing fresh meat to dust and other uncleanliness of the air.

Those arrested were Harry Matzke, Charles Chierdon, Ralph Brooks, Sam Davis, Horace Boston and Earl Blackman, the latter being declared not guilty. The ruling of the court on the Blackman case was that chickens are not fresh meat.

New Albany furnished all four of the arrests for the alleged sale of dirty milk, according to the monthly report of H. E. Barnard, which has just been issued. Each was fined $10 and costs. Those arrested were John A. Peyton. Gottlieb Bauer, William P. Ham and James M. Graham. The total fines and costs for the month reached $180.20.

Sixty-one food-handling establishments were condemned by the inspectors during the month, another unusually high number. Of the total number twenty-two were condemned because of improper construction. All were insanitary. Canning factories, creameries, dairies, fish markets, grocery stores, meat markets, milk depots, ice-cream factories, poultry houses, restaurants and slaughter-houses were in the list.

Thirty-eight samples of foods, examined at the state laboratories, were pronounced illegal by Mr. Barnard's experts. Seventeen of that number were vinegars. Ninety-nine samples in all were examined. Eight samples of drugs examined were illegal, according to examinations resulting in four illegalities.

Lemon Crop Good.

The Sicily lemon crop for this year is reported to exceed that of 1912 by 30%. Department of Commerce.

Salmon for Lobster.

The United States government, it was announced yesterday, thru the bureau of fisheries, will ship several carloads of breeding lobsters to Washington, Oregon, and California points each season to be placed in waters selected for their suitability. In exchange, it is reported that Pacific Coast salmon will be cultivated off the coast of New England.—California Fruit Grower.

Uncle Sam's Growth.

In the value of the output of its manufacturing industries the United States has made more rapid strides than any other nation in the world. In 1850 the total was 1,000 million dollars; in 1910 it was 21 million dollars; an amount more than double that of its nearest competitor — Great Britin — and greater than the value of the output of the manufacturing industries of Great Britain and Germany combined.—Commercial America.

A New Competitor for the Pacific Borax Co.

The legal fight which has centered around the deposits of Potash in the Searles Lake section of Lake Valley, has come to an end through the incorporation under the laws of Delaware of the American Trona Company, with a capital of $3,000,000. Trona is natural salt, composed of the combination of neutral and acid sodium carbonate. It is said that a plant will be erected at once, and that owing to improved processes, the production will be put out at a very low cost.

Don't Can the Information.

The agricultural colleges have vast stores of information that have never been made public—they are the graveyards of facts that should be used in solving the great questions of farming. Matter frequently is stored for years awaiting publication in bulletin form, and many of the bulletins printed are not written in a way that is suitable for practical use.—Missouri Fruit Grower.

Middleman Not to Blame for High Prices.

Statistics recently sent out by the department of agriculture seem to absolve the middleman from being the cause of increased retail prices of all commodities. Report says that the margin between the producers and the consumers price has widened very little, if any.—N. Y. Journal of Commerce.

COMMISSIONER WINKJER WINS.

On June 25 last an order was issued by District Judge Horace D. Dickinson of the Fourth Judicial District, on Joel G. Winkjer, as Dairy and Food Commissioner to show cause why the temporary injunction granted on complaint of the Price's Canning Compound Company, to restrain said commissioner from enforcing the law forbidding the sale of canning compounds, should not be sustained.

A hearing was held before District Judge John H. Steele on July 22, in which Trafford N. Jayne appeared for the plaintiff and Assistant Attorney General John C. Nethaway appeared for the defendant.

A demurrer was entered by the Attorney General, Lyndon A. Smith, on the ground that—

First, the Court has no jurisdiction on the subject of the action;

Second, the facts stated in plaintiff's complaint do not constitute a cause of action; and

Third, the facts stated in plaintiff's complaint do not entitle them to the exercise of the equitable jurisdiction of this Court.

The legal aspects of the controversy were thoroughly reviewed by each side, after which the Court immediately vacated the restraining order and denied the temporary injunction.

Following is the bulletin on chemical compounds:

Bulletin No. 43 under the above caption was sent out by this department under date of July 8, 1912. We have reason to believe that it accomplished its pupose, viz., aroused public interest and gave to the housewife knowledge of the character of such products, the use of which is now prohibited by law in all manufactured or prepared foods for sale or use by the general public because detrimental to health. The legislature at its last session passed what is known as Chapter 441, G. L., 1913, prohibiting the sale of such compounds whether in food or otherwise. The Supreme Court of Illinois in a recent decision held the sale of such compounds unlawful and it is not doubted that other courts will so hold when the matter is brought before them. In the case of the People vs. Mrs. W. T. Price, 1605 Pennsylvania avenue north, Minneapolis, Minn., Justice Farmer of the Supreme Court of Illinois among other things said: "It is just as important to prohibit the sale to the housewife of a compound containing boric acid, to be used by her to preserve fruits and vegetables put up by her for family use, as it is to prohibit the sale of fruits and vegetables after such ingredients have been added. We think the reasonable construction of the act to be that the prohibition against boric acid is not limited to foods to which it is an added ingredient, but extends to compounds sold as a food preservative which contain boric acid. The danger to health is as great from one as the other, and the prohibition of both was necessary to effect the evident purpose of the legislature." It is impossible to escape the logic as above set out by the court. The Illinois law is not as specific as is the Minnesota law, but the court in applying a reasonable construction greatly enlarges the security for public health. I therefore trust that the housewives of Minnesota (in whose interest this bulletin is written) will realize that the health of the family will be best promoted by refusing to use canning compounds, the chief purpose of whose sale is the financial gain of the promoters.

JOEL G. WINKJER,
Commissioner.

St. Paul, Minn., May 22, 1913.

GOOD PROPERTIES OF GOAT MILK.

Dr. Barbellion of Paris, France, reported the following to the International Congress of Medicine, relating to the digestibility of cow, goat and other kinds of milk: The curd of cow milk forms a dense adhering mass, which by agitation separates into clots that are but slightly soluble. The curd of goat milk, on the other hand, forms into very small light flakes which are soft, very pliable and very soluble, like those in human milk.

The curd in both human milk and that of the goat, after agitation, is precipitated very slowly and incompletely, while the curd of cow milk is precipitated very rapidly and very completely. Submitted to the action of digestive ferments, human milk and the milk of the goat were digested in 20 hours, while the same process applied to cow milk showed only a very slight advance after 60 hours. The milk of the goat approximates more in its composition and digestibility to human milk than that of any other animal.

Albert Teal recommends that milk for infants and invalids. He says in the *Angora Journal:* Goat milk will keep sweet three times as long as cow milk under the same conditions. It is used principally for infants and invalids, as it is more easily digested than cow milk. Investigations show that milk and the milk of the goat will digest in 20 hours, while cow milk showed only a slight advance after 60 hours. Goat milk is almost entirely free from disease.

Dr. Demande, in charge of the sanitarium at Haelbert, Belgium, says: Among the 300,000 goats of Belgium there is probably not one afflicted with tuberculosis. Goat milk being wholesome and beyond suspicion, there is no need to sterilize it. It may be taken raw, still palpitating with those mysterious forces which constitute life.

Professor D'Escherisch, who has studied comparatively fresh milk, has shown that milk is not merely a nutritive liquid, but that it is clear that children who are delicate have need of the ferments contained in raw milk, and are quite incapable of digesting milk rendered inert by sterilization.—*Colman's Rural World.*

PREHISTORIC MILLING AND BAKING.

Archaeologists have discovered that the art of bread-making dates back to the remotest times before tradition or history began making any sort of a crude record of the activities of mankind. During the Stone Age, the dwellers on the shores of the Swiss Lakes raised wheat and prepared cakes, made of a coarse flour which had been ground between stones in the most primitive manner.

Not only do relics of these stones remain, but also the flat rocks on which it is thought the unleavened cakes were baked. Grains of carbonized wheat and calcined remains of the bread have been found at the bottom of Swiss Lakes. Evidences of primitive mills, involving only the manipulation of a curved stone upon a flat one, have been discovered in various parts of Europe and on neighboring islands. The continued use of the round implement on the flat rock eventually wore a hollow in the nether stone. On the shores of Lough Macnean in Ireland such a stone may be seen with a number of depressions, indicating that several millers, always the women in primitive times, ground their corn at the same time.

Centuries later, the American Indian and the Mexican peasant ground and, in some districts, are still grinding their maize in the old way.

UNITED STATES DEPARTMENT OF AGRICULTURE,

Office of the Secretary.

FOOD INSPECTION DECISION NO. 151.

APPLICATION OF REGULATIONS.

Regulation 39 of the Rules and Regulations made in the pursuance of the authority conferred by section 3 of the Food and Drugs Act, June 30, 1906 (34 Stat., 768), which reads as follows:

"REGULATION 39. APPLICATION OF REGULATIONS.

"These regulations shall not apply to domestic meat and meat food products which are prepared, transported, or sold in interstate or foreign commerce under the meat-inspection law and the regulations of the Secretary of Agriculture made thereunder."

is hereby revoked.

W. G. MCADOO,
Secretary of the Treasury.
D. F. HOUSTON,
Secretary of Agriculture.
WILLIAM C. REDFIELD,
Secretary of Commerce.

Washington, D. C., June 16, 1913.

The Mutual Grocery Co. is a newly organized concern at Charleston. It has $25,000 capital.

The Fontana Importing Co. have opened new offices at 1111 Blue Island avenue, Chicago.

Brooks Morgan of Atlanta is the new president of the Biscuit and Cracker Manufacturers' Association of America.

A new South Carolina corporation is the Waterboro Grocery Company, of which L. B. Smith of Walterboro is chief promoter.

Milton Hershey, the founder of the chocolate company which bears his name, on May 30 and 31 celebrated the tenth anniversary of the building of the plant and the founding of the town of Hershey, Pa.

The Peninsula Grocery Company, Tampa, Fla., has applied for a charter. The capital stock is fixed at $150,000. Officers are H. Welbert, president; Clyde Person, vice-president; J. D. Stafford, treasurer.

Use of Egg Albumen in Baking Powder

By Elliot O. Grosvenor, Former Food and Dairy Commissioner of Michigan

An opinion is asked concerning the status and legality of the use of egg albumen, obtained from the whites of eggs, in the manufacture of baking powder.

It is both surprising and interesting to learn that anyone should question the use of so valuable and well-recognized a food as the whites of eggs.

It is, of course, well settled that the use of a substance can be prohibited for two reasons, and for two reasons only: First, the use of a substance may be legally prohibited if such substance is injurious to health; and second, the use of a substance in a food may be prohibited when by reason of its use the article of food shall deceive or tend to deceive the purchaser, or shall, by reason of such addition, conceal damage to or inferiority of such food.

In other words, to make possible the prohibition of any substance in food it must either be injurious to the health of man, or must create a condition of fraud or deception.

In the case of egg albumen no claim could possibly be made that it is injurious, since it is one of our best recognized proper foods. Any attempt to prohibit its use, then, must in the nature of things arise from the claim that its addition to a food creates a condition of fraud, and that the product to which it is added by reason of such addition becomes deceptive.

In our opinion, questions of fact and questions of law are involved, which we will consider in the order named.

We have consulted some of the best disinterested chemical authorities in the country, and are advised by them that the addition of egg albumen to the other ingredients of baking powder in no way tends to fraud. The baking powder is not changed in appearance, in color, taste, odor, or in any way. Its addition leaves the product—baking powder—in exactly the same condition. Its addition does not lower or affect the quality of strength of the baking powder; does not damage or conceal inferiority, nor create any condition deceiving or tending to deceive the consumer. We are advised by these authorities that whites of eggs in baking powder are actually an aid to the baking powder, and it is pointed out that in some instances whites of eggs in combination with sugar and gelatine become an efficient and satisfactory substitute for baking powder.

It appears further that egg albumen has been used in baking powder without question for forty years and upwards, and that some manufacturers of baking powder have employed it beginning with the foundation of their business, establishing the fact that its use possesses the endorsement of long precedent in the trade.

We are confident, from the information at hand, that egg albumen is a desirable and efficient ingredient of baking powder.

As to the legal questions involved these do not seem difficult. Up to within a very short time baking powder containing albumen has been universally sold in the United States without challenge from any food laws, state or national. Its entering into the channels of trade has been without question, and under the decisions of our courts it may be said to hold a secure place as a proper ingredient.

The law-making power of our states is vested in our legislatures, and under this power a legislature may *regulate* our foods at reasonable will, but may not *prohibit* the sale of foods save, as pointed out above, they are either injurious to health, or are deceptive and fraudulent, as defined under the specific language of the different state food laws.

Wherever food regulations upon this subject have been made, in no case has it been charged that egg albumen is in any sense prejudicial to the health of man. On the contrary, its value and standing as a food are freely admitted.

Since the use of egg albumen in baking powder is not injurious and does not tend to make the baking powder deceptive, it follows that the state legislature itself is without power to prohibit the use of this substance. A state food control official, getting his power from the legislature, cannot, of course, possess greater power than the legislature itself, and it follows that, no matter under what authority he may be acting, he cannot prohibit the use of a substance in a food which is neither injurious or deceptive.

It is now claimed that by reason of the presence of egg albumen in baking powder a so-called demonstration is possible—comparing the egg albumen powder with one which does not contain it—which will deceive the customer into believing that the powder containing the egg albumen possesses greater leavening power, as the viscous nature of the one holds the gas bubbles for some longer space of time than the same are held in the other powder. The consumer should judge, and really does judge, the strength of a baking powder by the results obtained in baking, and the loyalty of the housewife to a certain brand of baking powder rises naturally out of her experience with baking powders.

Because someone attempts to deceive the consumer through the behavior of a baking powder under certain unnatural conditions no more, in our judgment, affects the baking powder itself and its sale under the food laws than would false advertising or fraudulent claims by word of mouth. The baking powder industry is credited at one time and another with a good deal of questionable advertising and with attempts to deceive law-making bodies. Shall we, then, conclude that for these offenses baking powder shall be denied exchange in trade? The only legal remedy possible for fraud is prosecution of the fraud. If one advertises falsely he may be punished for it. If one misrepresents he is held accountable; but as a legal proposition we can see absolutely no connection between the sale of a legitimate food product under state and national food laws and the restraint of deceptive advertising in print or by word of mouth concerning those goods.

Baking powder containing egg albumen is admitted into the channels of interstate commerce under the authority of congress, through the national food and drugs act. Under the recent decision of the United States Supreme Court in the Wisconsin corn syrup case one principle is most clearly enunciated, and that is that no state can legally erect a barrier against a food product permitted in interstate commerce under the national food and drugs act.

Since baking powder containing egg albumen is permitted in free and unlimited interstate commerce, it follows that the sale of this product cannot be prohibited in any state. We are clearly of the opinion that any attempted prohibition of the sale of baking powder containing egg albumen as an ingredient is invalid and beyond the power of any food control official.

Yours respectfully,

Elliot O. Grosvenor...

The Baking Powder Question Again

The opening guns of another commercial fight among the baking powder manufacturers announce an extremely bold effort on the part of a certain manufacturer to discredit one of his more successful competitors by a well-planned attack against the most wholesome ingredient used in the manufacture of any baking powder today. The article that this manufacturer is attempting to discredit is a household byword. Its wholesomeness has never been questioned; its effectiveness is known and appreciated by the housewife as well as the chemist—viz., white of egg.

The complaining firm has secured the service of an ex-attache of the National Pure Food Department in the hope of being able to make what is strictly a commercial fight appear one for pure food legislation. Their plans seem to have been well laid, and in some cases they have apparently succeeded in imposing on the confidence of their friends. The attack cannot injure the manufacturers that use white of egg in their product, but is certain to prove a boomerang against the concern that resorts to such underhanded methods. In the many years that we have watched the constant struggle between the various manufacturers of baking powder we have never yet found where any firm has gotten very far by means of deception and chicanery. According to reports it seems that some of the trade journals came uncomfortably near being imposed on by some parties who attempted to get certain statements in print as a part of the proceedings of the recent convention of pure food officials. It is to be regretted that there are manufacturers among us who will attempt to mislead the public into believing their attacks against competitors are endorsed or authorized by men of authority.

The most peculiar feature of the fight now on is a new angle that has come up. Heretofore the differences have always been based on some physiological point. This time it seems that one manufacturer who has been less successful than a competitor is merely making a bold attempt to gain an unfair advantage.

White of egg has been used as an ingredient in baking powder for more than thirty years. Through constant use it has been standardized. The fact that it is extremely expensive precludes the possibility of any selfish motive in its use. It is used by scores of manufacturers, including bakery supply houses and even by bakers who make their own product.

There are many points in its favor, among them the fact that white of egg serves to imprison the gas, insuring satisfactory results in the baking, even in inexperienced hands. Another, that of increasing the viscosity of the mix, thereby securing an extra amount of leavening power.

The retailer is most vitally concerned, since the presence of white of egg in baking powder makes it an easy matter for him, or the salesman who calls regularly, to easily estimate the gas strength of the powder on the shelf, thereby protecting the merchant against having baking powder on his shelves below standard, and also insuring the housewife that she gets a powder with the required amount of leavening strength. The success of the manufacturers who have added this ingredient to their baking powder is in itself the highest endorsement of its use.

Grocers should regard this scrap as a "tempest in a teapot." The ultimate outcome is bound to be to the credit of the manufacturers who have been attacked. The fight is strictly a commercial one, and it is hardly probable that the food commissions will take any part in this affair, as there are many matters of much more importance to the public than this attempt to discredit an article of everyday use, the food value of which is known to everyone.

Adv.

NEW FISH-PRESERVING PROCESS.

The Henderson process of fish-preserving, by the use of low temperatures without the necessity for packing in ice for transport, has been under demonstration recently in Leadenhall Market, says *Ice and Cold Storage* of London. No chemicals of any kind are employed in the process, which occupies about six hours, and practically costs nothing beyond the expense of running the refrigerating plant.

First of all the fish is placed in a cooling chamber and slowly brought down to a temperature of 32 degrees F.; this part of the process takes about two hours. Its purpose is to extract the specific (or latent) heat of the fish. This having been completely removed, the fish is plunged into a tank of sea water, fortified by the addition of 15 per cent of salt. The purpose of the added salt is to prevent the bath from freezing at the extremely low temperature—11 degrees F., or 21 degrees below freezing point—to which the bath is reduced. At the same time, the water is kept in rapid motion by means of an electrically driven pump, which draws off the water through one pipe and drives it back through another.

During its passage the water passes through a filtering chamber charged with willow charcoal and nodules of coke. This filtering is important. Fish in its natural state contains certain noxious gases, the liberation of which on a hot summer's day, makes the vicinity of even the smartest and best-kept fishmonger's shop unpleasantly redolent.

In the new process, on the other hand, the noxious gases pass into the icy brine, to be extracted therefrom in turn by the willow charcoal, which has the faculty of absorbing ninety times its own volume of gas.

It might be supposed that the saltness of the bath would impart too salt a taste to the fish; but this is not so, because the extreme cold seals up the pores of the fish, producing a sort of enveloping film, while killing the germs which crowd the surface of the fish.

After four hours the fish are removed from the tank, and then, besides preserving their fresh appearance, as well as their resilience, they are impervious to decay for anything from a week to a fortnight—perhaps longer.

Mr. Henderson says he has kept fish treated in this way for a fortnight in hot Australian weather. He has sent a consignment to America, and is awaiting the report as to its condition on arrival. He points out that the cost of bringing fish from Aberdeen, say, to London, is something like £3 15s. per ton, of which, roughly, one quarter represents ice; in other words, 17s. 6d. is paid for the carriage of the ice. If, therefore, fish can be treated in this manner at the port of landing, a great saving in cost, as well as improvement in quality, would be experienced. We have not, however, says *Ice and Cold Storage,* gathered how the process would result in the case of fish which which have to travel a long distance in ice before reaching port.

WATER FILTRATION 4,000 YEARS AGO.

Although water is the natural drink, from a very early age mankind appears to have entertained objections to drinking it in a natural state. Recent discoveries show that over 4,000 years ago an elaborate system of filtration was established by the Egyptians to purify the waters of the Nile. And, coming to later times, we find that in both Rome and Athens hot water was drunk in preference to cold, by the small minority who used water for drinking purposes. Champier, writing in 1560, notes that the habit of drinking hot water was spreading among all classes in France. "Some warm it by holding over the fire, others dip burning bread into it. Rich people plunge a bar of hot gold into their water before drinking it, and the less wealthy a bar of hot iron, while the very poor are content to warm their drink with a live coal." Coal and water may be commended to epicures in search of a fresh drink.

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White of Egg in Baking Powder

It has come to our attention that attempts are being made by one of our competitors to discredit the use of white of egg in the manufacture of baking powder. The plot has been well laid and is far reaching.

We want to assure our customers that this fight is not one regarding the purity or wholesomeness of our product, but merely a commercial fight, launched by a competitor. We have no fear of the ultimate conclusions of the food authorities on this question.

White of egg is not only a wholesome product, but is a valuable ingredient. Its addition to baking powder improves the available gas strength and insures better results in the baking. For more than thirty years its use has been unquestioned. It does not require a chemist—every housewife knows the value of white of egg in connection with her baking powder.

The present agitation is nothing more or less than an attempt of one of our competitors to gain an unfair advantage.

We take this occasion to assure our customers that the Calumet Baking Powder Company will protect them in every way.

While we deprecate the underhanded methods that have brought about this fight, we welcome the opportunity to defend our product.

Calumet Baking Powder Co.

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The NATIONAL CONFECTIONERS' ASSOCIATION of the United States was organized in 1884, for the purpose of promoting the PURITY of candy, chocolate and kindred products.

It was the first Association to advocate PURE FOOD LAWS, of which some of the earliest in existence were PURE CANDY LAWS.

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AMERICAN BEER
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The per capita consumption of beer in this country is a little over 21 gallons, the United States ranking fourth after Belgium, Germany and the United Kingdom in this respect.

To ascribe this remarkable growth in the consumption of beer in greater part to the Germans, whose national drink it is, would be a grave error. It is well known that German immigration has, during the last quarter of a century, dwindled down to a minimum, but the growth of beer consumption continued during that period without interruption. Unless legislation assumes an aspect bordering on insanity, it will become the NATIONAL POPULAR DRINK of the American people—has in truth already become so—and the moral force of the temperance movement cannot prevent it. Indeed, it is a question whether it does not contribute towards it. At any rate, it is evident that the people, with the progress of civilization and the improvement of manners and customs, gradually turn from the strong alcoholic drinks to the light ones. In a great measure this is due to the excellency of American beer in appearance, taste and quality. It is quite true, as Henry Watterson recently said in the Louisville COURIER-JOURNAL: "The introduction of beer in America has done more for temperance than all the temperance societies and all the prohibition laws combined."

Beer is a oowerful aid in the digestion of starchy foods, and as a nutriment and a tonic for the sick, infirm, convalescent and feeble it is often, prescribed by physicians, with good results.

Beer is the one beverage that cannot be adulterated or tampered with from the time it leaves the manufacturers until it reaches the consumer.

Beer is made from pure water and selected materials, high in their percentage of nutritious elements.

Beer has always been regarded not only as a popular beverage pleasing to the taste and refreshing, but as a health-giving food, and hence has been very appropriately called "liquid bread."

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THE brewers of the United States use the greatest care in the selection of materials, so that only substances of absolute purity and wholesomeness are employed. In order to insure this, it is the uniform practice of brewers to submit their brewing materials to skilled technologists for examination and analysis. It is also absolutely necessary that the utmost care and cleanliness be observed in the brewery in order that the complex processes which the materials undergo before the process of brewing is completed may not be disturbed. It is well known that the slightest infection will cause such disturbances in fermentation that the resulting beer would be unpalatable and unsalable, and therefore they are compelled to exercise the utmost cleanliness in all the processes.

Unlike most other industries, the brewing of beer is, and has been for half a century, under the constant surveillance of the Government. Every barrel of beer manufactured in the United States is produced under the very eye of the Government officials, and the books, provided by strict regulations of the law and the Internal Revenue Department, show to the Government officials every constituent element which enters into the manufacture of every barrel of beer sold to the American consumer.

The brewers of the United States brew a cleaner, more wholesome and more uniform product than those of any country in the world. It is unquestionably the most popular manufactured beverage in the United States, and from its production the Federal Government realizes an income of $63,000,000 a year, which income is growing at the rate of six per cent annually.

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In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

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Look Out For Disease

Foul odors are nature's warning of the presence of the death-dealing Bacteria. Don't neglect the health of your loved ones. Don't invite typhoid, scarlet fever, diphtheria and other fatal diseases. Remove the cause. Destroy the germs. Kill all odors. Make and keep every nook and corner of your home sweet, clean, pure and safe. Use

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See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

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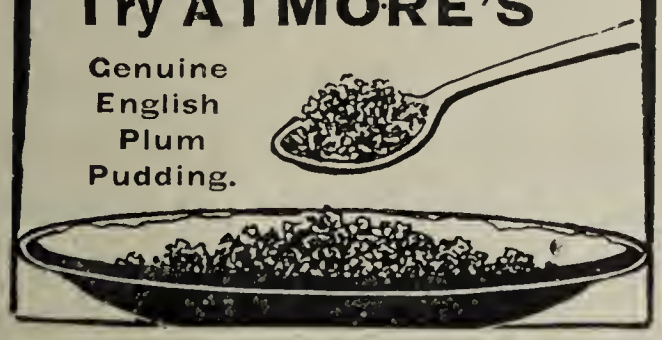
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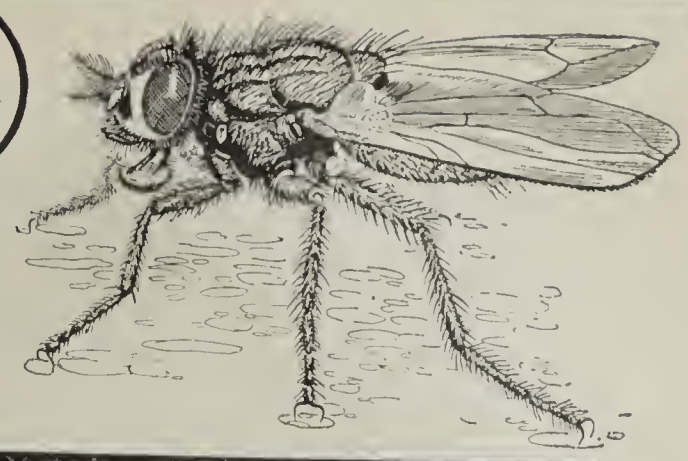


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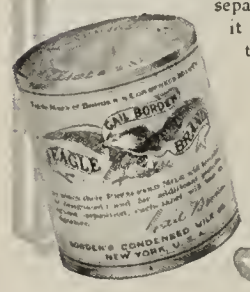
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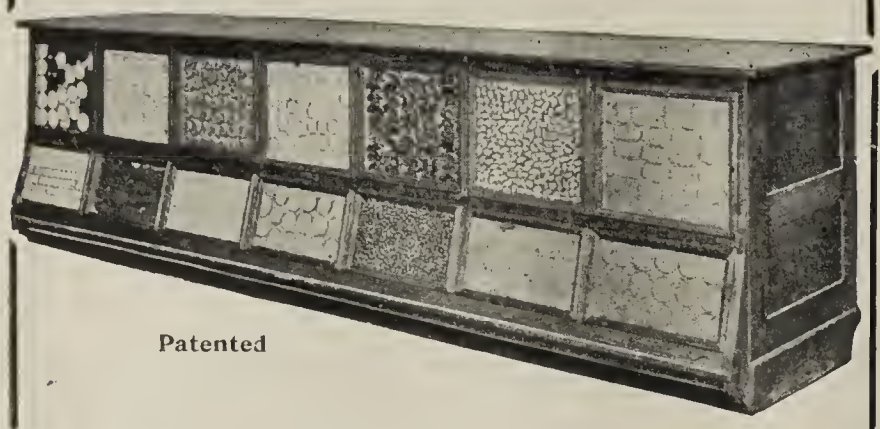
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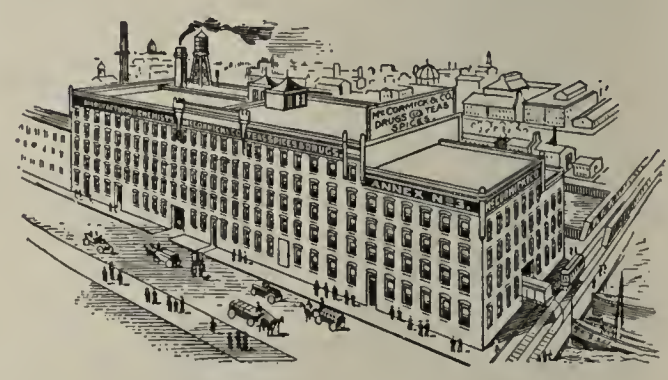
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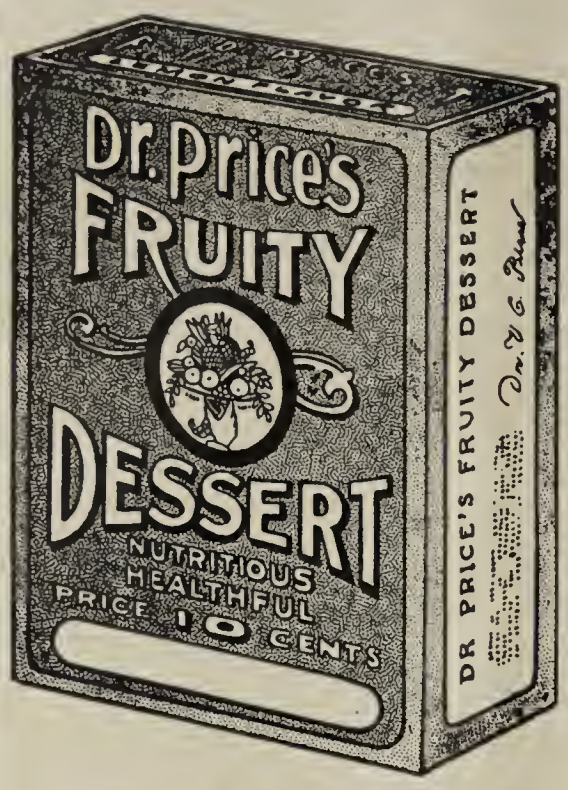
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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions coucerr ing the business to the best of its abillty, and it asks its readers in all parts of the world to aid it with inqulries and suggestions. to which it will give prompt and earnest consideration.

VOLUME VIII. AUGUST, 1913. NUMBER 8.

State Lines Slowly but Surely Fading Away

AT THE CLOSE of the late Civil War most people decided that the states lines, hitherto so sharply defined had been washed away by the blood of a four-years arbitrament of the sword. But these people were mistaken. We were not yet one people—a nation in fact. The states rights demon had been killed, but his ghost still sat between one state and another to disturb the whole people. And it is this ghost—this phantom of the old states rights doctrine that the commercial world has been trying to get rid of ever since the peaceful meeting of Grant and Lee at Appomatox.

And the business world is still at it. Manufacturers for the most part do an interstate business and naturally like to regard the whole country, made up of our several states and territories, as an entity, not a group of petty principalities, each with a law in conflict with the general law of the federal government.

No one doing business in many states objects to the reasonable police regulations of these states, but they do object seriously to state-made laws that are out of harmony with the similar laws of other states and the federal government. Under such conditions the manufacturer finds it not only expensive, but difficult in most cases to comply with a multitude of laws where one general law is already all that is necessary. He must needs waste time and money and energy and suffer from the discontented spirit from this senseless want of official harmony.

But the manufacturer may take heart, for the state lines that have plagued him in the past are slowly but surely fading away. Every time the ghost of the old state rights doctrine is made an issue the courts come to the relief of the manufacturer. All manner of cases involving this old issue have been contested within a comparatively short period and always the courts indicate in their rulings that the time has come for the state officials charged with the administration of state laws to realize that the federal government is in fact an entity, competent to make general laws for the whole people, that are not to be set at naught by a part of the people. And the courts are ruling further that the federal government will be satisfied with a compliance of federal law anywhere in the union, and will rebuke the state that sets up a contrary unnecessary law.

When we were a nation of farmers, living in a country of magnificent distances, the local laws of one section were of little consequence to the people of another section far away. But the railroads, the telegraph, the telephone and the fast mail service we now enjoy has wiped out the great distances of the past and brought the whole people of the country in such close touch that the regulations of another day are out of joint with the spirit of the times. The manufacturer did not amount to much in the old days as a national figure. Today he is a national force, and as such needs the encouragement of the whole people for the benefit of the whole people. His wares go to all sections of our country as well as to remote parts of other lands. He desires to do business on the Atlantic coast, under the same laws that prevail on the Pacific coast or in the intermediate states. So long as it is possible to have him operate under one general or federal law, it is for the benefit of the people of the entire country that he be permitted to do so instead of being hampered by a variety of laws, all aimed at the same purpose.

State food officials of the better type realize how great a handicap the manufacturer carries when operating under a variety of laws, and these officials are disposed more and more to bring the entire group of the food laws of their own state in absolute harmony with the federal laws.

Other officials still cling to the old notion of ignoring the work of other officials. Some of these gentlemen are energetic officials, but they have a little too much of the dramatic spirit and a love for the head lines of the daily papers. They want to make a stir

in the world, and they make it at the expense of the commercial world and the people generally.

Fortunately these officials are in such a small minority that they are not likely to exercise a very great influence on the food world in the future. With the old state lines they will gradually fade away, to be replaced by officials who are as broad as the very country itself.

MULHALL'S VOLUME OF WORDS.

THE world has been waiting patiently for Mr. Mulhall, the self-confessed insidious lobbyist at Washington, to say something. There has been much promise from day to day that a clean cut, clear statement would be made, backed by documentary evidence fixing a moral if not a criminal degree of guilt on men who have stood high in the esteem of the people of the country.

So far, however, the informer has simply presented a volume of words. In fact his whole story up to the present time is just one great big mess of words, corroborated by just such letters as any polite official might write in answer to the Mulhall queries.

When the whole matter is thoroughly sifted it appears from what might be fairly regarded as the evidence presented that the National Association of Manufacturers maintained an organization for the purpose of protecting itself from the attacks of other organizations. It did, no doubt, spend energy and money to assist in the election of men who would give the cause for which it stands a fair hearing. And it did spend money to help defeat men who were the avowed enemies of the manufacturing interests.

But what of it! At every election of any consequence there are issues. Each side spends time and money in the open to defeat the other side. Is there anything wrong in that?

Because a Democrat tries to defeat his Republican opponent he is not necessarily a rascal!

Nor is the prohibitionist dishonest because he writes of his cause, meets his friends in secret and discusses ways and means of promoting his cause. Neither is he out of place in the lobby of the state or federal legislature.

Every interest has an inherent right to appear before the law makers of the country in broad daylight and seek the legislation it desires. If this were not so we would not have in fact a representative form of government. The business man has a right to confer with the law makers by mail, and the congressman or senator who has the courtesy to answer the importunities of his constituents is doing nothing more than his duty. It appears, however, that a suspicion has been cast upon officials of this class. Their innocent letters have been printed in the public press and commented on by the voluble Mulhall as though they were evidences of a crime committed under cover.

It is the promise of something to come and the big headlines and printing of fac simile letters that has given the public an over-rated idea of the doings of Mulhall and those to whom he spoke or wrote. So far he has proved nothing beyond the fact that he was the confidential agent of reputable men, upon whom he has been willing to impose for a consideration.

Unfortunately for the nation, it appears to be popular to attack the manufacturer and believe all things that men of doubtful status may say about them. All the manufacturer asks, as Mulhall has clearly shown, is a square deal. When he does not get that he claims the right to make it plain to the law makers of the land. It is unfortunate that it should be necessary for reputable manufacturers to maintain a lobby to protect themselves against the unfair methods of other lobbyists.

CONSTRUING THE SHERMAN LAW.

UNDER our modern form of government by commission our utility commissions are compelling what is understood to be a violation of the Sherman act. That is to say, when they catch quasi public corporations competing in earnest they impose or threaten to impose heavy penalties. Where two or more similar companies operate in the same territory they are compelled to maintain living prices.

For practicing the same virtue in the independent commercial world there hangs over the business man threats of penalties, including a term in jail.

When the utility commissions take a hand in the practical conduct of business under their jurisdiction they learn that reckless competition is bad for business, and eventually bad for the consumer. They realize that it is unwise to permit men to sell below cost for the sake of taking away the other fellow's trade. They realize that the other fellow will be compelled to fight back, and business demoralization follows. So the commission encourages a fixed price for commodities and insists on the fixed price being maintained.

And the commission is perfectly right. A lot of business energy is wasted in commercial warfare. During the battle the consumer may get some benefit from the cut rates, but eventually prices must come to a living level or go beyond it.

Officials not in such close touch with business as the utility commissions love to talk about open, free competition. They see great benefits to the consumer in a commercial war that drops prices below cost of production. Competition free to the last degree looks like a price regulator, and he who would co-operate with his neighbor to maintain a fair living price they would hale into court for conspiracy in restraint of trade. It would appear to the average business man that if it is well for utility commissions to encourage or compel fair competition, it ought to be a good thing for private concerns to discourage ruinous competition.

In the course of time no doubt lawmakers and those charged with the administration of the law will find a way to protect business men from the cut-rate methods of competitors. Up to the point of monopoly it would seem business men should have the right to regulate prices and prevent unfair and ruinous competition.

WOULD CHEAPEN DISTRIBUTION.

WITH an avowed purpose of meeting the general demand for a lower cost of living, the farmers are organizing, or trying to organize so that the product of the farm will fetch better prices to the farmer. Of course all fair minded people would rejoice to see the farmer get more for his product if it should happen that he is not already getting a fair price, but it is not highly probable that raising the price of a product at one end will have a tendency to lower it at the other end.

What the farmer and many consumers cannot understand is the cause for the difference between what

the farmer gets for his product and what the consumer pays. A lot of money in the minds of producer and consumer is paid to middlemen, which producer and consumer feel should be saved. The farmer would take a little of this money and give the consumer the rest. That is to say he proposes to do this when the farmers are so organized as to cut out much of the money now going to middlemen.

The plan as set forth has a plausible ring to those who are not familiar with the work performed by middlemen. But men who have spent the better part of a lifetime in moving the farmer's product from farm to consumer look upon the farmer's plan as being visionary.

If the farmer has a carload of potatoes one hundred miles from an important market he should know that there is a great deal of service to be paid for before his potatoes reach the consumer. Now the farmer can perform much of this service himself or he can pay others to do the work for him. In any event, the railroad company must be paid, the commission man is worthy of his hire and the retail grocer must get pay for his service. If the farmer feels he can cut out commission man and retailer he may if he likes, peddle out his potatoes to the consumer. He has always had that privilege. He does not exercise it simply because it is more profitable to let someone else distribute his product.

To be sure we must always regard it as possible to do things in the future more economically than they have been done in the past. So let the farmer try to distribute his own product. If he can find a way to do it cheaper than it is being done now the people will have cause to rejoice.

OUR CONVENTION NUMBER.

WE HAVE a good right to point with pride to our convention number published last month. It contains a complete transcript of the best thought expressed at that notable gathering of experts, and is presented in such an attractive manner that our readers may be able to follow the action from the opening day to the close.

As may be supposed it is no small mental or physical task to prepare such a report as we have given our readers, for it requires a stenographic force of peculiar fitness to catch and record the utterances of speakers at such a gathering. The ordinary reports of meetings where only the common terms of the language are used presents a comparatively simple problem. But at a convention where experts discuss scientific questions in specific terms the work of properly transcribing the words of the speakers requires special ability.

It was our purpose to give our readers a report that they could preserve and reread from time to time with profit, to make the report full and as nearly correct as possible under the circumstances. The many complimentary letters received at this office since the publication of the reports, indicate that our work is fully appreciated by those in whose interest it was done.

As to the expense of such a report we have little to say, beyond the fact that cost has been given little consideration. Our purpose has been to make the convention number well worth the price of a year's subscription to those interested in the many important food questions so ably handled at this convention by the greatest experts of the country. We are satisfied with our work and feel certain that our readers appreciate our effort in their behalf.

DISCOURAGING RUINOUS COMPETITION.

WHILE the law department of the federal government is scolding and promising to punish those who do aught to interfere with free competition, the Department of Agriculture is doing something to bring the American sardine packers to a realization of the fact that they cannot make a living until they improve the quality of their output and stop the ruinous competition responsible for the poor quality of American sardines.

Of course the Department of Agriculture is not going to "butt into" the policy of the department of law, but it has established a laboratory at Eastport, Me., where the government experts will give the commercial packers an object lesson in handling sardines. The packers will be forced to come close to the standard of quality the government will set, at the risk of having their product seized for want of quality.

The packers, of course, will answer, "we cannot pack good quality at present prices, and we cannot agree to maintain a living price without running afoul of the government law department!"

But the answer of the Department of Agriculture will be that better goods must go on the market irrespective of the law department. This will force the packers to find a way to fix and maintain a fair price.

Unrestricted competition is responsible for the poor American sardines that have been put on the market. We must have better sardines, and the packers in order to comply with the regulations of the Department of Agriculture must get better prices for their pack. The government law department should advise these men of some practical way in which they can pack good fish without losing money. The packers know a practical way but they fear the heavy hand of the law.

IMPROVING THE MILK SUPPLY.

IN another column will be found an article by C. B. Whitford dealing with the milk problem of the state of Illinois. As set forth in that article, the people of the state, and for that matter, the people of the entire country, are being awakened to the necessity of improving our milk supply by going to the very source of the evil. Milk inspection by municipal boards of health is all very well, but the very best sort of inspection day after day will not give us the desired relief so long as the dairies are permitted to send out milk from infected cattle.

At this time there is being made a special effort by federal and state governments to improve the quality of our milk by compelling more sanitary methods at the dairy, more careful handling of milk in transportation and by getting rid of deceased cattle.

We have more tubercular cattle now than we had many years ago, for the reason that there are more cattle in the country of high breeding. It is the well bred cow that is more likely to be diseased than the old fashioned scrub cow. To permit the well bred tubercular cattle to perpetuate themselves makes for an inferior breed of cattle. If there is not to be a weeding out of the defectives, tuberculosis will in a short time become such a fixture in the milk breeds of cattle that its eradication will be next to impossible.

If we are to have better milk in Illinois, the first step toward bringing about that result will be the getting rid of all of our tubercular cattle.

An Obvious Duty

STATE ADMINISTRATION OF ILLINOIS SHOULD COMPEL A SUPPLY OF BETTER MILK. BY C. B. WHITFORD.

SHORTLY after the people of the great State of Illinois had chosen E. F. Dunne to be their governor, a well known public-spirited citizen was asked this question:

"What are the three things that Governor Dunne should make haste to tackle in his official capacity?"

The gentleman replied without hesitation:

Milk! Milk!! Milk!!!

Hundreds of children die every year in the State of Illinois because it is simply impossible to get good milk.

Other hundreds grow up weak and puny with the seeds of tuberculosis in their system. Those of this group that do not die before the age of maturity become weedy men and women, a walking disgrace to the state that refused to give them good milk when they needed it to start them on their way to a rugged maturity.

Milk is really the beginning of eugenics, and those who feel the beat of the public pulse today understand that we are entering upon a eugenic era. The people of this great country are beginning to ponder over the fact that we are spending millions of dollars annually for the improvement of our cattle and hogs. But not a penny for the improvement of the human race!

We are going to have a national bureau of heredity for the betterment of the race. That is certain. But we cannot breed a better race from a lot of weaklings brought up on infected milk.

It is true we have various bureaus throughout the state whose duty it is to look after the milk supply. But the work is not effective because there is a want of harmony among these various bureaus, or a lack of authority.

The pure food department of the state is restricted in its work.

The state board of health is bounded by sharp lines.

The municipal boards have their limitations.

The state live stock commission either cannot or will not perform its duty.

The one man who can cure our milk evil is Governor Dunne. Before he was elected I made bold to declare in print that he would give the children of the state good milk and I hope I did not make a poor guess.

The root of our milk evil comes within the scope of the work of the live stock commission. If this board is composed of competent men backed by a suitable law, all Governor Dunne need do is to direct them to keep the infected cattle out of the state.

At present the states that join us have laws respecting cattle infected with tuberculosis. When those cattle, highly bred and handsome to look upon are condemned, the Illinois cattle buyers get them for a mere song and sell them to the Illinois dairymen. We not only breed hundreds of infected cattle every year, but take all the diseased cattle other states dump upon us. Hence our infected milk.

A number of years ago when Chet. Bartlett was chairman of the live stock board, he made an effort to free the state of infected cattle. But he met with poor success. No one denied his ability as a live stock man, but there were so many opposed to his policy that he was unable to help the children and grown-ups to better milk.

Public sentiment has been aroused since that time. The people have been educated up to the need of a better milk supply, and what the people really want they get when they go after it.

Certain it is that the people want the infected cattle of other states kept out of the state of Illinois, and they look to Governor Dunne to find a way to keep them out because he is the only man who can compel the live stock board to give the people the protection they demand.

Because there is much official activity touching the quality of milk put upon the market the people are disposed to feel that a wonderful amount of good is being done in their behalf. But very much of this activity is lost motion.

The municipal health boards, under the power conferred upon them, may examine milk and condemn such parcels as do not come up to standard. They may fine dealers for offering such milk for sale, either at wholesale or retail. They may do this today and tomorrow, and have the same work to do again, for they are powerless to stop the flow of poor milk from its source. Moreover, the municipal departments of larger cities cannot in the nature of things reach all the milk that is brought into their respective municipalities, and as for the smaller cities and villages they have no working health departments to look after the milk supply.

The work of local health departments in large cities does much good at a great cost, but their work is far from being effective, simply because the scope of their work is limited.

The state boards of health in some instances are opposed to the tubercular test because it is not infallible. Most dealers in live stock and other well informed people understand that. But right-thinking people believe that if one hundred per cent of the infected cattle cannot be discovered it were well worth while to find ninety per cent. The people complain that when tubercular are found and there is not the smallest doubt as to their infection, they are still permitted to furnish milk for the children of the state.

The state food commissioner charged with the awful responsibility of looking after the purity of our food supply must keep his hands off diseased cows, so that he cannot help us get milk free from tubercular infection if he would. He can do much to improve the milk supply but there is a dead line he cannot cross.

It is the work of the live stock commission to hunt out diseased cattle and have them destroyed. If this commission has any important function to perform it is to rid the state of tubercular cattle. But under the present law or lack of authority this commission appears to be helpless. At least it has been so in the past. Let us hope that Governor Dunne will find a way to make its future usefulness a blessing to the children of the state that are crying and dying for want of better milk.

INFECTED COWS.

Because Louis Van Haften, a farmer near Jamestown, Mich., failed to obey the orders of the state live stock commission, he was ordered to ship twenty fine head of cattle to Detroit to be slaughtered under strict veterinary supervision. Meanwhile his milk was temporarily barred from the city.

The Van Haften cattle were tested for tuberculosis and reacted. The state live stock commission ordered the infected cows quarantined. The owner, however, proceeded to sell them to creamery men in the vicinity and the state officials heard of his action. Immediately Van Haften was ordered to buy back the cows and W. R. Harper and H. H. Halliday of the commission, accompanied by Dr. Eldon Smith, local milk inspector, visited the Van Haften place. They found the twenty cows there.

Since the condemnation of his herd Van Haften has purchased eleven Holstein, all of them having certificates of good health. But as the tubercular cattle and the new ones are all together on the farm, Dr. Smith decided to keep all of the milk from the place out of the city until Van Haften complies with the state order and ships the infected cattle to Detroit to be slaughtered.

It will cost Van Haften about $4 a head to ship the cattle, which are a fine lot, and under the present law he will be reimbursed by the state to the extent of about $25 a head. When the new law goes into effect in August, condemned cattle can be slaughtered where found and the expensive shipments can be avoided. Also the state reimbursement for condemned cattle will be considerably increased to cut down the loss to the farmer whose herd is found to be infected.

New Food Commissioner of Illinois

W. Scott Matthews of Carbondale, Ill., Succeeds A. H. Jones.

WE HAVE a new food commissioner in Illinois—Mr. W. Scott Matthews of Carbondale, Ill. He does not pretend to know all there is to know of the business of managing a big pure food department.

That is in his favor.

He expresses himself as being willing to learn the business he has been appointed to manage.

That is in his favor.

Modesty sits easily on the brow of Mr. Matthews. He does not bustle about. He does not pretend to be something he is not; but goes quietly and earnestly about his present business of learning how to be an efficient officer of the state; and, in view of the fact that Mr. Matthews has been a successful business man, he has the confidence that comes to a man who has plowed his way through business obstacles to the goal he started out to reach.

Entering upon his duties in the spirit of modesty, and with courage and determination to succeed, there is little room for doubt that Mr. Matthews will in a short time grasp the intricacies of his office and be in a position to give the people of the state such an administration of his office as they desire.

While Mr. Matthews admits that he is lacking in technical knowledge of pure foods and the administration of a pure food department, he confesses that pure food with him has been something of a hobby for years. He has a liking for the work to which he has been assigned for that reason. In fact, he had a commendable ambition to be pure food commissioner of Illinois—not for the mere emoluments of the office, but because he felt the work would be congenial and that he could make a record while in office that he could hand down as a rich heritage.

So far as mere money is concerned, Mr. Matthews' time is worth more than the salary he receives. In his part of the state he is a man of large affairs and is reckoned to be wealthy. He is possibly the largest land owner in the state of Illinois, having something like 4,000 acres of land over which he claims ownership, and farm land in Illinois, as most people know, is very valuable. He has the reputation also of being the alfalfa king of the state.

Of course Mr. Matthews is a Democrat, else he would not now be pure food commissioner of the state of Illinois; and he is a Democrat of wide influence, too, in the southern part of the state. He is well and favorably known in every hamlet in that section of the country, and is in close touch with the farmers as well. It was because of his reputation for integrity in his own community, as well as for his political enthusiasm and love for pure food work, that he was selected for his present place by Governor Dunne from a long list of applicants.

Coming, as he does, to the office in a modest mood, with a determination to make his mark in the world of food commissioners, there would seem to be no doubt but what he will succeed in giving the state good service.

Mr. Matthews appreciates the fact fully that Illinois is one of the greatest food distributing sections in the world. Manufacturers of food stuffs are in every part of the state. Then there are a great number of wholesalers and brokers who gather for distribution the food products of the world. It is no small task to find and weed out the manufacturers and distributors who are disposed to cheat the law. At the same time it is a delicate task to handle the many unintentional infringements of the law that are always before the food commissioner. It requires tact to dispose of these cases.

While the people have a right to demand an enforcement of the food laws, and it is the commissioner's duty to see they are enforced, he nevertheless must not forget that the manufacturing interests of a great state like Illinois must receive due consideration.

Mr. Matthews may be assured that he enters upon his difficult task of looking after the pure food of his state with the best wishes of this publication. He will make mistakes because no man is infallible. But we believe on the whole he will succeed in giving the people of the state of Illinois a good administration of his important office.

FEDERAL LAW SUPREME.

Writing on the subject of the supremacy of the federal law in commerce, Clowry Chapman, in *American Industries,* says:

The two-century-old conflict between Federal and state authorities over the regulation of trade and commerce has recently been renewed. Irreconcilable interpretations of the Federal Food and Drugs Act and a similar state law not in harmony with it have grown out of an attempt of the State of Wisconsin to force upon a manufacturer and upon his jobbers and retailers a designation for a food commodity different from that established by the Federal Government. It has taken a step which, if sanctioned by the courts, would offer each state a means of discriminating against commodities of the manufacturers and jobbers of other states to such an extent as to restrain competition with the commodities of local manufacturers and jobbers, and offer encouragement to the lowering of commodity standards and to the raising of prices—two conditions unquestionably destructive of the general welfare.

What Wisconsin has attempted through its independent regulation of food and drugs, other states, Nebraska and North Dakota among them, have also attempted.

To any one who is familiar with the conflict between Federal and state authorities over the regulation of trade and commerce, it must be clear that if each state could enforce laws and regulations in opposition to those of the Federal government, interstate commerce, or the national distribution and sale of commodities could be so seriously hampered as to be practically destroyed; certainly so if the laws and regulations of the several states should differ in important particulars from similar laws in other states.

Admittedly, the states could prescribe regulations if Congress had not acted. Inasmuch, however, as Congress has acted, the Federal law controls in those particulars wherein there is any conflict.

One of the reasons underlying the support given to the passage of the Food and Drugs Act was the belief that the several states would make their laws to harmonize with it.

The manufacturer had long suffered great inconvenience because of the diverse state laws on the subject of adulteration and misbranding. Not only did the laws of the states differ materially from each other, but the constructions placed on similar laws by food commissioners of the different states were inharmonious and antagonistic. Goods properly labeled to meet the requirements in one state were found to be improperly labeled for admission into another state; and indeed until the recent decision of the United States Supreme Court on this subject manufacturers were put to the necessity of making labels in accordance with the demands of different states.

Like manufacturers, jobbers dealing largely in food and drugs have been so driven by the necessity for uniformity of regulations on this subject that they have pleaded for such uniformity almost regardless of the character of the legislation which might follow. These jobbers receive food and drugs from the manufacturers, and distribute them to the retail trade without reference to state lines. They must conform to the requirements of the national law, and declare themselves entirely willing to do so. They are glad to have a law forbidding adulteration and misbranding, and restricting the opportunities for deception and fraud. But in order that the goods they handle may be sold by their customers in different states it is necessary to comply with the state laws also. Where these differ from the national law and from each other in their requirements, they add to the difficulty, the expense and the risk of the business, in a way that has no rational ground for existence. It is more important to consumers, more important indeed than to the trade in food and drugs, that state laws should be substantially uniform and conform to the provisions of the Federal law, because in no other way can there be a systematic and consistent enforcement of the laws or any assurance that their purpose of protecting the consumer against adulteration and misbranding will be attained.

Exit a Faithful Public Servant

A. H. Jones Retires from the Food Commissionership of Illinois After a Continuous Service of Fourteen Years.

AFTER a continuous service of fourteen years, A. H. Jones has retired from the office of food commissioner of the state of Illinois. While Mr. Jones did not make as much loud noise in his official capacity as others in similar positions did, he nevertheless was a very busy man in office, and made a record which taken as a whole marks his service as the work of one of the best food officials in the country.

The policy of Mr. Jones was to give the people of the state pure food with the least possible friction. He never yearned or worked for the head lines, nor did he strive to see how big a list of convictions he could show at the end of each year. Rather he worked in a quiet way, always trying to keep manufacturers and dealers out of court. He simply demanded an observance of the law and the good intent of those who made and distributed food stuffs. He educated manufacturers and distributors up to the necessity of observing the law, at the same time making it plain that wilful violations of the law would not be tolerated. His absolute fairness to dealers in the administration of his office made him highly respected among the food dealers of the state.

Alfred H. Jones, Illinois State Food Commissioner, who was appointed by Governor John R. Tanner, after the state food law went into effect July 1, 1899, was reappointed by Governor Yates, and after his term expired was again reappointed by Governor Deneen, having served continuously for about fourteen years, retired from office August 1, 1913. Mr. Jones has the distinction of having served longer as State Food Commissioner than any other commissioner in the United States. He was one of the pioneers in food control work, and understood the food conditions in Illinois, as well as in the United States, more thoroughly than any other food official.

It was through his influence, as commissioner, that the Illinois state food laws were entirely revised and codified in 1907, and again amended so as to meet conditions growing out of the work of co-operation between national and state food officials in 1911.

Mr. Jones saw the necessity of a state stock food law that would place the stock foods of Illinois under the control of the Illinois State Food Commission, and in 1905 used his influence with the General Assembly of Illinois in having enacted a splendid state stock food law, and again in 1911 the sanitary conditions of food were not observed by the manufacturers and packers, and he had drafted and enacted into law a state food sanitary law requiring all foods in Illinois to be prepared, manufactured and sold under strict sanitary conditions.

In 1899, when Mr. Jones was appointed, he became a member of the National Association of State Dairy and Food Departments. This association was composed at that time of the Food Commissioner and food officials of about twelve states, and as president of the association he took the initiative in having the other states organized, and enrolled as members of the association, and labored with the committee on co-operation—a committee that was composed of state food officials for the purpose of securing co-operation between the food officials of the different states and securing a national food law.

Mr. Jones as commissioner of Illinois soon found that in order to carry on food control work and enforce food control laws it would be necessary to have a national food law that would control interstate commerce in foods, not only between the states but of foreign countries as well. He, with the other members of the committee, worked assiduously with the Congress of the United States, and appeared before committees of the Senate and House, each session of Congress from 1899 to 1906, when the new national food law was enacted by Congress, and a national food law was placed upon the statute books of the nation.



A. H. JONES.
Retiring Food Commissioner of Illinois.

Mr. Jones was in touch with al the food officials of the United States and the various states of the union, and had their confidence, and was always an active member of the Committee on Uniformity in the enforcement of national and state food laws, and the work of co-operation between national and state food officials.

Mr. Jones took up the work of co-operation between the manufacturers and packers of food as well as with the mayors and boards of health, women's clubs and other civic organizations of the state who were interested in food control work, and arranged for complete co-operation with all these organizations and associations, and in doing so visited the state manufacturers, associations, the retail grocers' associations, the State Federation of Women's Clubs, and the retail grocers' association of the different cities of the state, and delivered addresses on the food laws of the state, as well as food sanitary conditions, and thus secured the desired co-operation with these organizations and associations.

Mr. Jones had a splendid corps of assistants, who always worked loyally and faithfully with him in bringing about these conditions.

Mr. Jones understood the food conditions, as stated, of Illinois almost perfectly and no state in the union had such an organization as had Illinois under Mr. Jones' administration of the Illinois state food office.

The Illinois state food law, as well as the sanitary and stock food law, were regarded by all the food officials of the United States as model laws, and afforded better protection to the consumers of the state than of any other state of the union, for it was Mr. Jones' endeavor to see that the food consumers of the state were thoroughly protected and that all foods were prepared, manufactured and sold under sanitary conditions.

At the time the first food law was passed, creating the Illinois State Food Commission, in 1899, there was provided, under the law, about ten food officials for its enforcement

In 1907, when the state food law was revised, on the recommendation of Mr. Jones, the roll of membership was increased to about forty members. There was also provided a food standards commission for making standards for the various food products of the state. The members of this food standards commission were thoroughly qualified for the discharge of their duties, and tentative standards were provided by this commission for the preparation, manufacture and sale of all the various food products of the state.

Mr. Jones during his administration was active in securing efficient help for the department, and absolutely required that inspectors and chemists should thoroughly understand their duties; and in order that the department might become more efficient he used his influence in having the employes of the department placed under the state civil service laws in order that rigid examinations might be required of them under the state civil service commission, and in this way the people would be protected through its food officials in securing a pure and wholesome food product.

Mr. Jones appreciated the fact, as will be shown by his annual reports, and addresses delivered before the National Association of American Food Officials and the other organizations interested in the food control work, that Illinois was the first state in the Union in the production, manufacture and sale of all the various food products of the country; that her virgin soil was peculiarly adapted to the production of these various foods, and that her seventeen thousand retail grocers, her four thousand manufactories of foods, one hundred thousand dairies; her seven hundred creameries and her forty milk condensaries and bottling plants should be required to properly prepare, label, manufacture and sell all this vast food product so that the six million consumers of the state might have comparatively pure foods and those of the best, and have them prepared, manufactured and sold under a strict sanitary condition.

The American Food Journal takes great pleasure in adding its testimonial to Mr. Jones' good work as state food commissioner. The Journal has always kept in close touch with the administration of the Illinois state food office, as well as of the other states of the Union, and of the administration of the national food law by the United States food officials; and, knowing the faithful services performed by him to the state as state food commissioner of Illinois, and the high esteem in which he was held by all food officials, as well as manufacturers, packers and dealers in foods, and the fairness with which he discharged his duties, takes pleasure in congratulating him upon his retirement from office upon the work so faithfully performed in building up this great department of the state government, and thus protecting the lives and health of the six million consumers of our state, as during the term of his office the life tables show that the average life of the people of our state has been increased at least seven years, and much of this is due to the enforcement of properly labeling all foods as well as producing them under sanitary conditions.

TO REDUCE BACTERIA IN MILK.

The Department of Agriculture, which is conducting an investigation for the betterment of milk shipped in interstate commerce, has just completed the examination of the supply of milk furnished the city of Wheeling, W. Va. The temporary laboratories have been transferred to other points where the city or town supply is furnished by producers making interstate shipments. Such localities afford the government an excellent opportunity to investigate the milk supply.

The government inspector who has been working in this territory has found a simple explanation of why milk that comes from apparently good dairies frequently shows an excessive number of bacteria and is bacteriologically bad. The inspector reports that these dairies take the morning milk and combine it with the afternoon milk of the same day, and ship this combination the next morning. As a result, the day's milk is kept through the heat of the day, and by the time it is 24 hours old shows a high bacteriological count. The inspector made experiments in taking night milk, keeping it through the cooler hours of the night, combining it with the morning milk, and shipping it. There was radical improvement in the condition of this milk. In this case, the farmer ships the milk by train or electric car an hour or two later than he did under the old practice. The inspector reports that if this new system of combining evening milk with the next morning's milk is followed it will go far toward solving the problem of preventing the delivery of milk that is bacteriologically bad. This plan is regarded as so important that the government will probably summon a number of milk-producers to hearings, in order to impress on them the importance of this method of shipping. This method, of course, is not practiced in all milk sections, as it can be carried out only where train schedules permit.

EDUCATING DAIRYMEN.

The department of agriculture is paying a great deal of attention to milk at present, and the indications are that in the near future the activities of the Dairy Division of the Bureau of Animal Industry will be enlarged. The following report issued by the department is issued to encourage and educate the dairymen of the country:

The United States Department of Agriculture in its milk activities is carrying on an extensive campaign of education to help dairymen produce and market good clean milk. This work is carried on principally by the Dairy Division of the Bureau of Animal Industry. This division exercises no policing function. It has no power under the law to seize milk or to prosecute milk dealers. Its work is purely educational. This division issues many educational bulletins based upon its experiments in the economical production of clean milk. It supplies farmers with these bulletins and also sends men into the field to show milk producers how to make changes within their means which will raise the quality of their milk and also increase their profits. These demonstrators have helped milk producers who supply over 200 cities. In each city these demonstrators co-operated with the local health authorities, not to help them secure evidence or bring prosecutions, but to improve the local system of inspection whereby the inspectors can aid the milk producers of the territory to bring their milk up to the city's own standard without being called upon to make excessive expenditures.

With the inspectors, the demonstrators visit the dairy farms as friends of the farmer. They may show him that certain cows in his herd do not yield enough milk to pay for their feed. Or the demonstrators may point out certain changes in feeding which will greatly increase the yield. They help the farmer build an inexpensive milk house, and show him how a window or two, or a waterproof floor for his barn, or a little whitewash or more frequent cleaning will actually increase his profits. Where desired, they explain methods of pasteurization and shipping and handling of milk. Through this bureau, the department supplies tuberculin for testing herds. These demonstrators have no power to compel the farmer to follow their advice—they merely try to show him that these measures are for his own good. They do not and can not require the farmer to pasteurize his milk. Where they find a herd that is not tested for tuberculosis, or milk being produced in an unclean way, they advise that the milk be pasteurized, using any one of a number of competing machines or a home-made pasteurizer. As a result of this work, thousands of farmers have introduced new and sanitary methods of producing and shipping milk—not because they were forced to do so, but because they saw the justice of protecting their consumers and found that they lost less milk and made greater profits by following the specialists' advice.

The Dairy Division advises the pasteurization of milk unknown or of doubtful purity because in large measure it protects the consumer from dangers that might be incurred by using such milk in the raw state. Pasteurization is not recommended as a substitute for sanitary precautions but as an additional safeguard where the inspection is not sufficient to guarantee the purity of the milk.

The Dairy Division also is conducting an extensive campaign among consumers. In the first place, it is trying to convince them that it costs no more to produce clean, wholesome milk than to produce dirty and dangerous milk. In the second place, it aims to show the householder how to keep milk after it has been delivered by the milkman. Clean milk, if allowed to become warm, if kept in unclean vessels, or if exposed to the dust of rooms or left within reach of flies, quickly deteriorates and may become dangerous.

The spores of bunt, or the stinking smut of wheat, are known to retain life in the granary for at least seven years, and in the soil for two years. Under favorable conditions they are capable of germinating in the soil, quite independently of the grain, and of producing crops of a second and even a third type of spores that are equally virulent.

The Diet of Young Children

By F. I. Wilbur.

IN the summer time there is no question of quite so much importance as the diet of young children, especially of infants. Carelessness then becomes doubly dangerous because, a childs' body being normally provided with all the requisites for its own rapid growth, is also especially well adapted for the nurture and development of adventitious germs. Furthermore, the condition of unstable chemical equilibrium necessary to the child's rapid growth and development predisposes it to equally as rapid degeneration of its cells and tissues if the normal nutriment required by them is not furnished to them. If the cells deteriorate there is a tendency to tuberculosis, and if the tissues degenerate from lack of the proteids or tissue-building food, the child becomes flabby, pale and rickety from the imperfect formation of its muscles, blood and bones.

In its prenatal state the child, like other animals, lives on the nutriment supplied by the blood of its mother, and for the first twelve months of its life it continues to require food of an animal nature, such as milk. At this period it is considered essentially a carnivorous creature. Nevertheless the direct eating of meat itself is, as a rule, distinctly injurious to the child. So much is this the case that the French government has felt compelled to forbid by law the giving of meat to children under one year of age.

The elements of food required by the child, as well as the adult, are five:

1. Proteids, for tissue building.
2. Mineral salts, for tissue building.
3. Carbohydrates, for the production of energy.
4. Fat, for heat or body fuel.
5. Water.

It will readily be seen that a child's sensitive and relatively extensive body surface will need a relatively abundant supply of fat to maintain its heat.

Van Noorden has pointed out that a persistent storage of nitrogen occurs in the growing body where new tissue is being constructed.

This nitrogen, furnished by the proteids, is necessary for the minute cellular expansions and explosions of the phenomena of growth whose residual oxidized products show an increase of weight and add to the solids of the structure of the body.

Proteids are of prime importance in the food of infants apparently for two reasons. First, because they contain a proportion of oxygen similar as the oxygen proportion found in atmospheric air. This seems to enable them to maintain the intercellular system of bodily oxidation and elimination of carbon dioxide which constitutes the respiratory processes of prenatal life. These processes seem to be centered in the gastro-intestinal mucous membrane, which is the largest gland in the body. In a child one year old it is equal to a tube fifteen feet long. The digestion of proteids is greatest in the jejunum; of the carbohydrates in the duodenum. In the intestines, owing to the oxygen present, the conditions favoring rapid growth and the slight resistance of the culture medium to the growth of other organs, there is developed an abundant flora which is said to represent a mass of vegetable life far in excess of the ordinary imagination. In the intestinal tract also an abundant fauna of various sorts of worms is apt to develop with an unwholesome activity, and by their voracious appetites impoverish the nutrition that would otherwise be supplied to the child's blood. For this reason cleanliness in the care of everything pertaining to a child is of the utmost importance to keep off the larvae of worms as well as the germs of disease. In one child killed by worms as many as forty-six worms were found in the intestines.

Proteids also, as we have said, contain nitrogen and afford to an infant the only kind of food which is able to replace the continuous nitrogenous waste of the body's cells. If the proteid supply is insufficient a flabby, pale or rickety child will be developed. They need, however, to be supplemented with fats, otherwise the digestive organs and kidneys would be severely taxed with the excess of proteids that would have to be taken to maintain the normal nutriment required.

Where an infant's food contains an excess of proteids, indigestion and its accompanying troubles of an explosive or gaseous expansion character follow. Excess of fatty food will produce vomiting and diarrhoea in a child. Lack of fat gives a deficiency of heat and poor digestion and nutrition, and catarrh of the lungs and bowels soon follows. An excess of carbohydrates causes fermentation in the stomach and intestines; lack of carbohydrates makes proteid digestion more difficult.

The proteids in milks of different animals seem proportioned to their normal rapidity of growth. Calves grow faster than children. Hence cow's milk contains more proteid. A calf's weight is doubled forty-seven days from birth, while an infant's weight is not doubled until 180 days after birth.

FATS.

Throughout childhood a liberal supply of fats should be used in the form of eggs, butter, cream and cod liver oil. Cod liver oil is of even greater value for infants than adults. More fat is required in infancy than at any other time of life. Most artificial foods do not provide enough fat. Hence it is often advisable to give olive or some other oil to a child from time to time. The majority of children are very fond of it.

CARBOHYDRATES.

Most proprietary foods are said to contain too large an amount of carbohydrates for the infant's requirements. It is always the case that the too exclusive use of any form of carbohydrates tends to produce scurvy, rickets, moroseness, indigestion and diarrhoea. They are apt to cause fermentation.

Though carbohydrates form an important source of animal heat for adults and older children, and are one of the most abundant of the solid elements of ordinary foods, comparatively little of them is required in infancy. If given they may cause a real or apparent increase in weight, but give little proportionate increase of strength to the infant.

MINERAL SALTS IN FRUIT.

Oranges, peaches, stewed prunes and pears seem to contain a proportionately large amount of phosphoric acid (P_2O5), which is useful to the child in forming bones. They as well as apples have all a reasonably large amount of potassium oxide (K_2O), which is needed by the growing body.

DIETARIES.

First Period—From Birth to the Twelfth Month.

In the first stage of an infant's feeding milk is pre-eminently the only food to be advised, and human milk above all others. The proteids needed by an infant are well supplied by the casein and other albuminoids which are present in both human and cow's milk, in the white of an egg, the gluten of wheat, the fiber of muscle, etc. In human milk they constitute but 1.5 per cent of the whole quantity, while in cow's milk they form 3.5 per cent of the whole, of which 2.9 per cent is in the casein. In human milk the casein comprises two-sixths or one-third of the total proteids, or 0.3 per cent of the whole. In cow's milk, therefore, the casein, which belongs to the nucleo albumus, is nine times as abundant as in human milk, and because proteids are more difficult of digestion by an infant some infants cannot or will not drink cow's milk.

A further disadvantage is that cow's milk is acid, while human milk is alkaline or amphoteric. Cow's milk contains six times as much salts as human milk. Human milk, besides lecithin and nuclein, contains more combined phosphorus than cow's milk. Both sorts of milk have about 4 per cent of fat, but the cow's milk differs in having in it large quantities of fatty acids, of which human milk has only traces.

Human milk has 7 per cent of sugar, while cow's milk has but little over half that amount (4 per cent) of the same kind of sugar.

Cow's milk also has a relatively larger amount of calcium phosphate and a smaller amount of potassium salts and iron

oxide. The daily milk supply from a cow is said to yield as much citric acid as is found in two or three lemons.

Human milk gives more protection to an infant against diseases than any other sort of feeding. It also produces better mental and physical development.

The mineral salts needed by an infant or child are abundantly furnished in both human and cow's milk.

Lime is also an important constituent of an infant's diet, owing to its usefulness in making bone. Henry C. Sherman says (see "Chemistry of Food and Nutrition," New York, 1911, page 291) that milk is so rich in calcium that one need take only 400 calories in this form to obtain 1 gram of lime, whereas to get the same amount of lime from round steak and white bread it would be necessary to take 10,000 calories. Fruits and vegetables generally seem to be fairly rich in calcium, but in most cases the intake of calcium depends mainly upon the extent to which milk (and its products other than butter) enters into the dietary. A quart of milk contains rather more calcium than a quart of clear saturated lime water, and by far the most practical means of insuring an abundance of calcium in the dietary is to use milk freely as food.

Lime water added to cow's milk makes it much more digestible.

After the first stage of an infant's feeding it is considered very dangerous to wean a child either at the beginning of summer or during the summer. Whenever it is done it should be done gradually and should extend over a period of eight weeks. A child is generally weaned, if it has not weaned itself, by the end of the first year. By this time it has developed the body ferments necessary for the digestion of carbohydrates so that it no longer needs to depend so largely or exclusively on nutriment of animal origin.

A child born prematurely is only able to digest much lower percentages of proteids, sugar and fat than ordinary human milk contains. For this reason the feeding of such infants must be carefully managed, usually every three hours, and two or even three wet nurses provided. Otherwise a normal milk may prove fatal to the infant because it is too strong, for the frequent nursing of one nurse only is apt to increase the solids in human milk and disturb its quality.

Second Period—From the Twelfth to the Thirteenth Month.

The diet recommended for the second period by Dr. Robert F. Williams, whose statistics and statements we have frequently quoted in this article, is as follows:

From the twelfth to the thirteenth month the infant should have five meals daily.

1. A breakfast of slightly warmed bread and cow's milk.
2. Broth of some kind given with bread.
3. Lunch of equal parts of oat jelly and cow's milk warmed, seasoned with salt.
4. Oat jelly in the middle of the afternoon.
5. Supper of bread and milk late in the afternoon.

Some children cannot take bread at this age.

Fruit juices are found very useful for the second stage of an infant's diet. They should be given at least an hour before it is given milk feeding. An orange or ripe peach is found useful. The evident advantage of fruits to an infant's diet lies in the mineral salts which they contain and their general laxative properties.

Up to the third year the feeding of five meals a day may be continued. Most children have small stomach which must not be overloaded, but assimilate best food given frequently in small quantities.

Third Period—From the Fourteenth to the Fifteenth Month.

In the third period of feeding well-boiled rice can be added to the child's diet.

Fourth Period—From the Fifteenth to the Eighteenth Month.

Butter may now be added to the bread, and for the midday meal a well-baked, mealy, white potato mixed with butter and salt can be given. Stale bread dried crisp in the oven is also considered desirable, and an occasional soft-boiled egg. Strained oatmeal gruel boiled thin can at this time be given once daily. It is especially good for teething children in the second summer. At least a quart of milk should be given each day, and water must also be given when necessary, although it constitutes 87 per cent of milk. It is especially useful in summer when one naturally needs more water and less food, and will often stop a child's crying when nothing else will. In some cases its quieting influence seems of a chemical nature, especially in cases where hyperacidity of the system exists.

Fifth Period—From the Eighteenth Month to the End of the Second Year.

A soft-boiled egg may be a part of the regular diet, and a baked apple can be added to the evening meal, or a peach or orange juice; but other fruits are best avoided.

The cereal gruels may now be replaced by very thoroughly cooked porridge of the same variety. Oatmeal should be cooked for a child not less than three hours. Some persons think it best to cook it a whole day. When most of the teeth are through the gums rare scraped beef or mutton may be added to the diet.

Sixth Period—From the Second to the Third Year.

The child may now have daily one quart of milk, one or two soft-boiled eggs, beef or chicken soup, small piece of steak, roast beef or chicken (only at the midday meal), white potatoes, beans, peas in puree form, oatmeal, rice, barley, crackers, cocoa and zweiback, and orange, apple, peach or stewed prunes as fruit.

Seventh Period—From the Third to the Sixth Year.

The number of feedings are by this time generally reduced to four. The food allowed is now one quart of milk daily, and cream may be used in the milk or on potatoes. For very young infants skim milk is generally better than too rich milk. Meat may be given daily and may be either mutton or beef, except fried beef, chicken or fresh fish. Only one vegetable per day should be given. This may be a potato baked or with cream, spinach, peas or beans. Of cereals, oatmeal, hominy, rice, arrow root well cooked or seasoned with cream or milk and with a little sugar may be given. All varieties of bread or biscuit may be given when stale. Eggs should usually be given only every other day or the child will soon tire of them. Dessert should be given only once a week and consist of plain custard, rice pudding with cream, or junket.

Especial care must be taken with the fruit in a child's diet in the hot months. The fruits recommended are orange juice, ripe peach, baked apples, stewed prunes and pears.

The foods to be avoided in the diets of infants are vinegar, wines, spices, tea or coffee. Of meats, ham, pork in all its forms, corned beef, salted fish, goose, duck. Of vegetables, fried vegetables, cabbage, onions, cucumbers, beets and green corn. Of breads, fresh bread and griddle cakes. Of cake, all sweet cakes containing dried fruits. Of pastry, pies, tarts and all kinds of pastry of fruits and preserves. Bananas, fruit out of season and stale fruit and all salads and preserves, as well as all nuts and candies, except small portions of chocolate candy.

A child must be taught to eat slowly and masticate its food thoroughly. Its palate is normally so good a guide to its needs that it should not be forced to eat against its will. In summer, as we have intimated, the amount of solid food should be lessened and the amount of liquid food increased.

In conclusion it is well to remember that chemically a child's constitution and food requirements are very different from those of an adult, so they should not be given the same food as adults. The nature of the nutriment given to them is of vital importance to their present and future physical, mental and even moral well-being, as Williams says (page 204): "It is a proper or improper nutriment which makes or mars the perfection of the coming generations. The large part of the immense mortality during the first year of life is traceable directly to disorders of nutrition. The question whether a child shall be strong and robust or a weakling is often decided by its food during the first three months."

PAPRIKA HIGHBALL.

The agricultural department and congress, so it is reported from Washington, will combine in an effort to take a fall out of old Billy Rum by promoting the use of the Paprika highball! This variety of Hungarian pepper is tasty and stimulating, with enough bite in it to wake a man up. One congressman said he had tried the new drink and thought it was a sure enough good thing—for some people. But as for others, when they really want a drink there is no substitute that will just hit the spot. There is an abundance of evidence, however, from high authority to show that eating a good deal of paprika pepper takes away the appetite for alcoholic drink.

Harrisburg, Pa., Aug. 1, '13.

H. B. Meyers, Publisher American Food Journal,
15-21 South Market St., Chicago, Ill.

Congratulations on convention number. This is due you from every food control official of the country.

Jas. B. Foust, Commissioner.

Oyster Season Approaches

An Organized Effort is Being Made to Improve the Status of the Oyster

ADVICES from the Atlantic Coast indicate that we are to have an unusually good oyster season. It is also quite certain the old method of gathering oysters along the shore of the Chesapeake Bay is to be done away with. Instead of the oyster gatherer getting oysters where he pleases an effort is being made to systematize this work by the state so that the oyster grounds will be rented to the oystermen. Under this plan it is expected that men who rent from the state a certain portion of ground will find it to their interest to give the oyster beds the care they need in order to secure a larger and better crop. Some of the old oyster men of the Chesapeake resent this interference with the rights they have always had to catch oysters where they pleased. Their fathers and grandfathers enjoyed this privilege, and it is with them an inbred right they do not wish to relinquish. It is thought, however, that the necessity of giving our oyster beds better care will compel a recognition of the new order of things.

A nation-wide movement to reduce the cost of living by making oysters a staple article of diet has been started by the Oyster Growers & Dealers Association of North America. This organization, which includes in its membership, the largest growers, packers and distributors of oysters in the United States and Canada, has set the week of October 20 as a national "Oyster Week," during which oysters and oyster dishes will be featured all over the land to acquaint the general public with the value of this bivalve as a meat substitute.

At the recent convention of oyster men in New York, Dr. Carl L. Alsberg, head of the United States Bureau of Chemistry, gave the oyster a clean bill of health, saying that people ran less danger of "contracting typhoid fever from oysters than they do from drinking raw milk or the water supplied in many communities."

Discussing the food value of the oyster he said: "Every pound of food taken from the sea relieves the land of producing a corresponding amount of meat." Government reports show oysters to be extremely nutritive and easily digested.

One Government Report says: "Speaking roughly, a quart of oysters contains on an average about the same quantity of actual nutritive substance as a quart of milk or three-fourths of a pound of beef or 2 pounds of fresh codfish."

Packed as oysters are now, only in their own juice and without the addition of water as formerly, a quart of oysters today will go much farther than even three years ago; in fact, a prominent retail handler says that one pint is sufficient for a family of 3 adults.

Because of the high price of meat, which will only be eaten by the rich ten years from now according to President Russell of the Master Butchers' Association of the United States, the substitution of oysters for beef will have a decided tendency to cut down the grocery bill of the public.

Dr. Alsberg is authority for the statement that in numberless cases of illness where oysters were blamed, it was discovered that other food had been eaten at the same time which was much more likely to have caused the trouble than oysters.

How few of the great oyster eating public, when an appetizing stew or a dainty plate of half shells are set before them, realize the time, care and expense necessary to accomplish that result.

The subject of planting and cultivating oysters is such a large one the various points can only be touched upon in a limited article of this kind.

In the early days of the industry the supply was limited practically to the "natural beds" (that is, beds where the oysters grew naturally without cultivation), but as the demand increased, these natural beds soon ceased to meet the requirements and, lacking cultivation, produced less from year to year.

From these facts it was evident that in order to prevent the demand from far exceeding the supply, and in time permitting the supply to become exhausted, a system of cultivation must be adopted.

The various coast states adopted different laws, but in all the northern states certain sections of the bays, rivers and harbors were, and still are, set aside as natural beds, and the remainder, including the great open bodies of water, were granted to the oyster planter either by lease or franchise.

The planter first tries the beds which are open for lease or franchise, and, if in his opinion the bottom is satisfactory, is not exposed to storms which would wash or destroy his crop, and has sufficient current sweeping over it to warrant a proper growth, he applies for same, and if his application be granted he is then ready to commence operations.

He must first clean and prepare the beds for planting, and to do this he must employ his steam or power boat to remove from the bottom shells, rocks and marine growth of various kinds.

When the bottom is thus cleaned the planter waits until about July 1 and then loads either on schooners, scows, power or steam boats empty oyster, scallop or jingle shells or crushed stone, takes them to the beds to be planted, and this material is shoveled overboard, care being used that it is spread as evenly as possible over the bottom. From 500 to 1,000 bushels to the acre, according to the location and nature of the bottom, being used.

The cleaning and planting of beds is a matter of heavy expense, the cost of shells and planting amount to from 6 to 8 cents per bushel, millions of them being planted each year.

The planter is fortunate if he succeeds in securing a "set" once in three years on an average, and each year when a "set" is not obtained he must remove the shells which he planted from the beds, and again prepare it for planting.

If the "set" is obtained on beds where the water is shoal and exposed to storms he must remove it to deeper and safer waters, or else it would be buried up or destroyed by the first severe storm.

If obtained in deep and safe waters he must watch it carefully to keep down and destroy the enemies of the oyster, among which are starfish, drills, winkles, etc., the starfish being particularly destructive and capable of destroying a bed in an incredibly short time if given an opportunity.

Oysters are rarely matured or marketed from the beds on which they were "set," as it has been found that they will grow and fatten more rapidly if transplanted on grounds in another section, and certain sections are now used entirely for producing "set," while others are used entirely to mature the "set."

Oysters are shifted, as a rule, when they are one, two or three years old, according to conditions and the purpose for which they are to be used, and the average age of the oyster when brought to market is from four to six years, during which time he has had constant care and attention, and has been transplanted at least once, and in a good many cases, twice.

The oysters are taken from their beds for the market by dredges, one being lowered on each side and slowly dragged over the bottom.

The contents of the full dredge are dumped on deck, and as one is emptied and lowered again, the other is drawn up and emptied, and this is continued until the boat is loaded.

The oysters are now ready for market, having had every care and attention for from four to six years. The planters being careful to mature them on grounds over which strong currents of salt sea water flow, an article of food has been produced which is pure, delicious, nutritious, healthful and economical.

AMERICAN BEER, ITS POPULARITY AND WHOLESOME QUALITIES.

The per capita consumption of beer in this country is a little over 21 gallons, the United States ranking fourth after Belgium, Germany and the United Kingdom in this respect.

To ascribe this remarkable growth in the consumption of beer in greater part to the Germans, whose national drink it is, would be a grave error. It is well known that German immigration has, during the last quarter of a century, dwindled down to a minimum, but the growth of beer consumption continued during that period without interruption. Unless legislation assumes an aspect bordering on insanity, it will become the national popular drink of the American people—

has in truth already become so—and the moral force of the temperance movement cannot prevent it. Indeed, it is a question whether it does not contribute towards it. At any rate, it is evident that the people, with the progress of civilization and the improvement of manners and customs, gradually turn from the strong alcoholic drinks to the light ones. In a great measure this is due to the excellency of American beer in appearance, taste and quality. It is quite true, as Henry Watterson recently said in the Louisville Courier-Journal: "The introduction of beer in America has done more for temperance than all the temperance societies and all the prohibition laws combined."

Beer is a powerful aid in the digestion of starchy foods, and as a nutriment and a tonic for the sick, infirm, convalescent and feeble it is often prescribed by physicians, with good results.

Beer is the one beverage that cannot be adulterated or tampered with from the time it leaves the manufacturers until it reaches the consumer.

Beer is made from pure water and selected materials, high in their percentage of nutritious elements.

Beer has always been regarded not only as a popular beverage pleasing to the taste and refreshing, but as a health-giving food, and hence has been very appropriately called "liquid bread."

PRESERVING AGENT FOR EGGS.

A new agent for the preservation of eggs has been found and placed upon the market by a Zurich concern, and from all accounts, says Consul General Mansfield, has met with very good results. The preservative is called Ovo Conservator, and consists of a prepared liquid substance of adhesive character, the ingredients of which may be easily and cheaply obtained in any country. The process of preservation is very simple: A flat vessel of about 100 quarts is filled to half its capacity with the preserving agent, into which the eggs are dipped for two minutes and then allowed to dry. For the dipping process the eggs are placed in flat wire baskets, each with a capacity of 300 to 500 eggs. One basket is dipped after the other, and by employing a larger vessel several baskets may be dipped simultaneously. In this manner two or three persons can dip 200,000 eggs per day.

The inventors claim that the treatment is superior to the cold-storage and pickling methods of preservation. Cold-storage eggs become decomposed a few days after being removed from the refrigerating rooms, and the pickling method seriously affects the taste of the egg, while considerable expense is involved in the application of both of these methods, whereas economy is one of the chief advantages possessed by the new treatment. They state that eggs are always overhauled before shipment and that very little time is lost in dipping them in the solution during this operation, as they dry very quickly and are almost immediately ready for repacking. No special machinery is required and the new agent is guaranteed to preserve the eggs for nine months, causing them to retain their freshness, weight, transparency, appearance, smell, and taste.

The claims of the inventors of Ovo Conservator have been investigated by the authorities of the Federal Polytechnical School at Zurich. Eighteen eggs were submitted to them in December, 1911, 12 of which had been treated with the solution and 6 in their natural state. They were carefully weighed, placed in a sealed box, and after six, nine and twelve months were examined and tested.

In every case the non-preserved eggs lost at least three times more in weight than the preserved eggs. As to the density, after nine months all the preserved eggs stood the test in a solution of common salt of 1.015 density, and after one year also, with the exception of one egg. All the non-preserved eggs failed to stand this test after six months. After an interval of nine months the non-preserved eggs lost their transparency, whereas the preserved ones were still clearly transparent. Of four preserved eggs, there remained after one year two of good transparency, one fair, and one nearly opaque. The preserved eggs also stood the tests, after one year, of appearance, smell, and taste, whereas the non-preserved specimens were useless.

The résumé of the authorities' investigation was that the new preserving agent keeps the eggs fresh for nine months, after which time they may be used for every purpose. They state that the decomposing infection takes place either before the egg is laid or afterwards by germs which penetrate the eggshell, and the new treatment prevents the second infection, or at least greatly diminishes it.

BREAD NEW OR BREAD STALE.

So far as the French medical profession is concerned the question of new versus stale bread is one that is not allowed to drop. It is being constantly revived though there is very little that is new to be said about such a subject. Acute indigestion is attributed in a great many cases to eating new bread; on the other hand, if one possesses good digestive powers, new bread is declared to be harmless. Again stale bread is not always a cure for indigestion, so the argument continues ad infinitum. Whatever the merits and demerits of new and stale bread may be, discussion is as free as ever, and tends to become monotonous at times. If a referendum of the people could be taken on the point, one does not suppose there is room for doubt that the vote would be in favor of old bread as against new. And if a reason were asked for this verdict of the people, the decision would be found to turn on the popular belief that fresh, newly baked bread is not easily digested, and in some more or less vague way, is held to be unwholesome. By the word popular one takes it to refer to the adult population, for if children trouble about it at all, or if their opinion could be got, it would certainly be, one thinks, in favor of the fresh article, and the fresher or newer the better. And even among grown-up people, who have learned to think about their digestion, there is much inconsistency, often a weak liking for the thing which they have learned to call bad—the baker's loaf, the consumption of which far exceeds that of all other kinds taken together. The same people who are in dread of fresh bread will, strange to say, demand hot rolls for breakfast, and hot scones for tea, possibly preferring even to these hot muffins and crumpets, so often described as a dietetic abomination.

Opinion which leads to inconsistency of this kind and degree can easily be described as uneducated. Is fresh bread more or less digestible than stale, and if so, why? Without entering in any detail on the chemistry, or the general technique of bread-making, it is necessary to refer to one point. In the process of baking, more or less of the starch is converted into a soluble gummy material, dextrin or dextrical. The higher the temperature, and the longer exposure, within the limits of burning or charring, the greater is this conversion into dextrin, and it may be added, things being equal, the more easily digested is the bread. Hence the advantage generally ascribed to fresh well-made toast, which has had a second baking. This is probably true of bread only so long as it is fresh. For with long keeping the dextrin tends to harden while drying, and so not only becomes itself less soluble, but being so easily acted on by the saliva of the mouth. On this ground it may fairly be said, that the staler bread is, the less easily digestible does it become. It is true that stale bread is more brittle than fresh, more easily broken into small fragments. It may even be more easily moistened, say with tea or some other liquid, but this is not at all the same thing as putting it into the best form for digestion.

What happens to bread, even in the uncut loaf, is plainly seen in the case of toast. When fresh it is crisp and easily masticated, but, when kept even for an hour or less, it becomes tough, and proportionately less pleasant, and more difficult of mastication. The average person fails to apply the necessary time and effort to its mastication, but moistens it with the liquid available, and so swallows it, without the preparation in the mouth, which is a necessary preliminary of easy digestion. Given the proper amount of mastication, it is assumed to be the case, that fresh bread, like fresh toast, is both more wholesome and pleasanter than stale.

EFFICIENCY COMMITTEE.

President O. B. McGlasson of the National Wholesale Grocers' Association has appointed the following members of the Economy Efficiency Committee:

Chairman, George E. Lichty, of Smith, Lichty & Hillman Co., Waterloo, Iowa; William Judson, of the Judson Grocer Co., Grand Rapids, Mich., and D. H. Bethard, of Jobst, Bethard Company, Peoria, Ill.

The object of this committee is to meet with similar committees from the National Canners' Association, American Specialty Manufacturers' Association, National Retail Grocers' Association, or any other association interested in distributing food products.

If there is any more efficient or economical way of manufacturing, assembling and distributing foods to the consumer, these joint committees should be able to discover it and give the consumer the advantages.

Oats a Universal Human Food



NO one knows when man and beast and birds first began eating oats. History and tradition give us the notion that oats as a nourishing diet have been used as food from the beginning of man's time.

In comparatively modern periods, Europeans have been very fond of their oats products, more particularly the inhabitants of Scotland and Ireland. The man from Scotland with the traditions of his country bred in his bones would hardly think he had been well served at breakfast without a little oat meal porridge for a starter.

The sons and daughters of Erin have always been wedded to their oat meal porridge and potatoes, and to this day, whether in the land of their birth or abroad, they have the hankering for a dish of oat meal porridge.

Among the laboring classes in Scotland and Ireland, it is not a small dish of oat meal that is consumed as a side dish. It is often the substantial meal. And a big pot it takes to make porridge for a family of fair size.

The English farmer likes his oat meal porridge, too, and on occasion makes this food the important part of a meal. So, too, in the manufacturing districts, oat meal has a host of friends.

Americans, in the early history of our country, were not given to the full use of oat meal. They had formed the habit of eating corn meal, and knew little of the preparation of oat meal and oat meal foods.

The country miller who ground the farmer's grain was quite expert at preparing a grist of corn meal for the table. And he would do well in grinding a mixed grist of corn, corn cobs, oats and buckwheat, for the pigs or cattle, but he could not do a real good job of grinding oats for the table. That had much to do with the fact that but little oat meal was used in the country during its early settlement. As the country grew and manufacturing interests were developed, the larger mills paid attention to the making of oat meal, and as a natural consequence, the demand for this product grew and improved methods of manufacture followed as a matter of course.

The great improvement in the preparation of oats came when the roller process was substituted for the old grinding method. With stone grinders there is more or less of grit from the stones that gets into the meal. Any other form of grinder is bound to wear away as a result of the great friction necessary in such process.

With the modern roller process this is avoided. The grain is rolled or mashed so that it has all the qualities of a finely ground meal, without the impurities that get into the meal as a result of grinding.

When the oats made by the new process were first put on the market, the product found favor with the public at once, and continued to grow until an enormous demand was created. And this demand is greater today than ever, and in all probability will continue to grow. Particular people all over the country who have been eating bulk oat meal are learning that the modern package rolled oats is superior in every way as a food product, and once the new style product is tried, the old style oat meal is discarded.

The modern American oat product is now found in practically every little hamlet in the country, as well as in all sections of the larger cities.

Our manufacturers have for a number of years been developing a foreign market for their output, and have had such success that our rolled oat packages have become a familiar sight in many parts of Europe.

One large manufacturer whose business abroad is very large, operates two mills in Canada, from which they supply their Canadian and European trade. In addition to these mills, they operate another in Hamburg for the same purpose.

Oats for the manufacture of rolled oats are chiefly grown in the northern states, and are known in commerce as number one and number two white oats. Illinois, Minnesota, Iowa and Wisconsin furnish the bulk of these oats.

After the oats have been cleaned they are put through a machine which takes off the outer hull. The berries are then separated with reference to size, several grades being made. These for good reasons are rolled separately and then mixed. Before going into the rollers, however, the grain is slightly steam cooked. This softens the berry so that the rolling or crushing process is helped.

During the past five or six years there has been a marked improvement in the quality of American oats. The farmers of the country had permitted their oats to deteriorate very largely through continuous planting of the same seed on the same farm. The federal government promoted a better system of farming, and the farmers have seen the importance of the government idea and have learned to raise better crops. The oats in most sections of the country have steadily increased in weight, and it is quite likely that the improvement already well established will continue year after year, until our oats will weigh as many pounds to the bushel as those of other countries in similar soil and latitude.

There has been a notion abroad that European oats are much better than ours for the purpose of making oat meal. This is a mistake. The foreign oats are somewhat heavier, but they contain no more nourishment, nor are they of superior flavor. The best evidence of the quality of our oat product is furnished by the fact that we are able to sell our rolled oats abroad in competition with the home product, in spite of a pardonable sentiment that makes the foreigner prefer his own goods, when they are equal to those of a foreign country. The Europeans are eating tons of our oat product, which is as much as to admit that they find our rolled oats superior to any oat product of their own. Perhaps it is not in the oats themselves but in our method of preparation that the acknowledged superiority lies. At any rate, the Europeans like our oat product and buy it very freely.

Apart from the fact that the oat product is convenient for the housewife, and furnishes a palatable dish for any meal of the day, it is a most nourishing food, good for the strong or the weak, for those who are sick or well. It is fast becoming one of our national dishes.

It has been found almost impossible to handle loose oatmeal in a sanitary way. It matters not how much care is taken in the original preparation of the oatmeal, nor how carefully it may be packed in large containers, it finally comes to the housewife in a more or less unsanitary condition.

Retail grocers who handle bulk oatmeal have a great deal of trouble in keeping it in such a sanitary condition as they would like to keep it. No matter how well the bin or other receptacle is arranged for its keeping, the frequent opening and closing of the receptacle and the handling necessary make it simply impossible to keep the product in the sanitary condition demanded by food buyers today. For that reason the carefully prepared oatmeal, put up in sanitary containers, has become the popular method of handling this product.

Durum wheat production in the United States last year was again normal at 40,000,000 bushels. The flour therefrom has been mainly used for macaroni, but increasing amounts are blended with softer wheat flour for baking.

As an admixture in bread making pea flour is said to improve the flavor and texture of the wheaten loaf and add to its keeping qualities. The addition of 10 to 20 per cent of corn flour gives the same results.

The power of expansion which the gluten of flour possesses determines very largely the physical properties of the bread. Some glutens possess an expansive power four or five times greater than others.

Indiana Correspondence

THE Indianapolis State Fair ordinarily is a place where farmers of the state gain ideas of things new and wholesome and helpful in their lives. This year there will be at least one department at the fair that will have as universal application to the lives of all classes in Indiana as the majority of the exhibits have limited application. It is the exhibit of the Indiana department of pure food and drugs and it is to be this year perhaps the feature exhibit of the state fair.

The fair is to be held September 8-12 and already Indiana farmers and out-state pure food enthusiasts are calling for much information regarding the various state department exhibits. In all of this inquiry the pure food and drugs exhibit seems to be the lodestone of interest.

The exhibit will consist of four divisions, two of them novel in the extreme. Weights and measures will take up the first division. Foods, drugs and dairy products will be the second; a modern sanitary grocery store will be the third, and an old fashioned unsanitary grocery store will be the fourth.

The state laboratories and state officials have been working ceaselessly for weeks preparing the latter two exhibits.

The weights and measures exhibit is to be more comprehensive in scope than any former exhibit of the sort in Indiana. Under the new amendment to the Indiana weights and measures act and additional rulings of the state inspector of weights and measures approximately forty Indiana counties have taken up the legal regulation of the weights and measures from a local standpoint, appointing inspectors and co-operating directly with the state department. In all other portions of the state the day of "short weight" and sales by box, package and carton is passing. The exhibit at the fair is to consist of all the types of condemned scales, weights and measures which have been condemned in Indiana by state, city and county inspectors of weights and measures. These will show the methods used by dishonest merchants in defrauding consumers. The old High Cost of Living bugaboo will be discussed from all the angles possible by experts and authorities on food stuffs and weights and measures. The necessity of having accredited inspectors of weights and measures within every unit of government possible in the state will be dilated upon thoroughly, according to announcements from Charles Downing, secretary to the state board of agriculture.

In the food and drug exhibit samples of adulterated food and drugs will predominate. How the buying public pays for water, cheap starches and other cheap substitutes will be a large part of the exhibit. Modern methods of candling eggs, as safeguards against the former practice of robbing the public by sales of bad eggs, will be demonstrated by experts. Instructions as to the best methods of handling eggs from the producer to the consumer will be given daily.

While the exhibit is proposed to aid the consumer principally numerous features within it will be directed purely to the producing and jobbing interests in a semi-educational vein.

The drug exhibit is to represent the results of several years work in the pure drug laboratories of the state. It will show the actual contents and values of the various patent medicines exposed for sale in Indiana. For many months the Indiana department has been battling to "show up" spurious patent medicines. This fight has not been carried on in order to needlessly ruin businesses of legitimate patent medicine proprietors. It has simply been carried on to keep cheap, unwholesome "cure-alls" off the Indiana market. Much of the fight has been through channels of publicity of the contents of these often harmful compounds. Many a paper in India during the past year particularly has been threatened with dire results if it does not stop giving publicity to the analyses of patent medicines as given out by the state department. Nothing has come from any of these threats except a retraction here and there by papers of some statement that was thrown into the "story" of the bad medicine by an unwitting reporter and which was foreign to the actual analysis results.

Thousands of dollars are spent annually by persons in the state who have become addicted to the patent medicine habit, according to H. E. Barnard, state food and drug commissioner. Sometimes these medicines are not only worthless but exceedingly dangerous, the state official has contended. All of these points are to be brought out in the exhibit at the state's fair, where fifty thousand Indianians gather annually.

The third division of the state exhibit will show a modern, sanitary grocery store with all its up-to-date accoutrements. Modern fixtures, clean, up-to-date show cases, refrigerators, scales, sanitary cheese cutters and all other modern devices by which the battle against the germs are carried on will be exemplified.

Then will come the contrast. A run-down, hodge-podge, old-fashioned grocery store will be set up alongside the good one. This sort was very popular in Indiana before the enactment of the pure food and drug law. Exposal of all types of food to insanitary influences of all sorts will be graphically shown. Food, unprotected by glass, wood or metal cases, now compulsory by statute, will be shown and the former insanitary methods of handling food and meats are to be demonstrated by trained experts from the state board of health's corps of assistants.

MYSTERIES OF ARTESIAN WELLS.

Artesian basins, or the underground water supply which furnishes artesian wells with their constantly flowing streams, sometimes spouting to a considerable height above the surface, are often popularly referred to as "subterranean rivers," which are believed to "flow" at great depths, eventually finding their way to the surface to feed some visible stream. Or they are thought to exist as great caverns or reservoirs deep down in the earth which, if tapped by the drill, furnish the tremendous flows of water which characterize some of our largest artesian wells—several hundred thousand—and even in some cases half a million gallons a day. It is true that artesian waters are stored up in underground reservoirs, but they are not of this character. Most artesian water supplies consist simply of water-filled strata of sandstone or other porous rock material, through which the water very slowly percolates, confined from above and below by other strata of impervious rock or clay. Through this inclosed layer of porous rock the water works its way with infinite slowness, following the dip or slant of the rock and, where tapped, coming to the surface if the surface at this point be below the source of supply. Coarse sandstone is capable of holding a great quantity of water, as much as six quarts per cubic foot; but the rate of its movement through this rock is so slow as to be almost inappreciable.

To illustrate how slowly the water travels: Many artesian or flowing wells are found along the Potomac river at Colonial Beach and other points in Virginia about 60 miles of Washington. This water is obtained by drilling into a sandstone formation which extends along the Potomac valley and into Maryland and outcrops near Frederick, Md., some fifty miles north of Washington. It takes about 100 years for the water of this "subterranean river" to flow that distance—that is, the rains falling upon the exposed portions of the porous rocks near Frederick sink in and move southward at the rate of about one mile a year. The water issuing from the wells at Colonial Beach today fell as rain on the uplands and mountains of Maryland around about the time that Washington was president of the young American republic.—*Scientific American.*

New York, August 7, 1913.

The American Food Journal, Chicago, Ill.

Dear Sirs:—We have received the July issue of the American Food Journal. Please accept our congratulations upon your full and complete reports of the several conventions contained therein. With very best wishes, we are,

Very truly yours,
The American Bottler.
William T. Phillips, Secretary.

Vancouver, B. C.

Editor American Food Journal,
Chicago, Ill.

Dear Sir: Just received July number of your publication. It is certainly good. R. W. Week.

Warning as to the Care of Milk

Department of Agriculture Issues Instructions for the Proper Care of Milk in the Home.

THE department of agriculture has just issued instructions on the proper care of milk in the home. This is meant to be supplemental to the measures to improve the milk at its source. The instructions follow:

Washington, D. C.—No matter how carefully milk is handled between the farm and the home, or in how pure a state it is delivered at the domestic ice-box, it quickly can become an undesirable food if carelssly handled in the home, according to the specialists of the U. S. Department of Agriculture. Milk that is left for only a short time in summer heat may become unfit for use.

Milk will quickly become contaminated when exposed to the air, or when placed in unclean vessels. Though some bacteria are always present, even in the best grades of fresh milk, they are generally harmless provided their numbers are small and they are not of the disease producing type; but milk must be kept cool to prevent the bacteria already in it, and which may get in it by accident, from multiplying to a point where the milk is undesirable. Producers and dealers have done their duty if they have left at the door a bottle of clean, cold, unadulterated milk, free from the bacteria which cause disease. The consumer must then do his part, if he wants clean, wholesome milk for himself and his family.

Milk should be taken into the house and put in the refrigerator as soon after delivery as possible. This is particularly necessary in hot weather. If it is impossible to have the bottles of milk put immediately in the refrigerator, provide on the porch a box containing a lump of ice. In planning a house, arrange to have the refrigerator set in the wall with an opening on the outside. It is always possible to provide locks for these boxes or refrigerator doors, and supply the milkman with one key. The interior of the food compartment should be wiped every day with a clean cloth, and thoroughly scalded as often as once a week. Under no circumstances should the drain-pipe of an ice-box be connected with a sewer.

The milk should be kept in the original bottle, and the bottle left in the refrigerator until needed. Before use, the neck of the bottle and the cap should be washed and then carefully wiped with a clean cloth before the cap is removed. Remove the cap with a sharp-pointed instrument, so as not to push the cap down into the milk. Once a bottle is opened, it should be kept covered, both to keep out dirt and bacteria and to prevent absorption or undesirable odors. The original cap should not be replaced. Instead, place an inverted cup or tumbler on the top of the bottle. The milk should be used from the bottle as needed and any unused milk should not be returned to the bottle after having been poured into another vessel. Do not let milk stand in a warm room on the table any longer than is necessary. Do not place milk in a refrigerator compartment with onions or other food having a strong odor.

Before returning the bottles to the milkman, wash them first in cold water and then in warm water. Do not use milk bottles for holding vinegar, kerosene, or other substances than milk. Never take milk bottles into a sick room, because infectious diseases can be spread through a milk bottle returned to the farm and delivered to some other home. This is a civic duty that everyone owes to his neighbors. If there is a case of typhoid fever or other serious communicable disease in the house, the fairest thing to do for one's neighbor is to provide one's own clean bottles or covered dishes into which the milkman can pour the milk from his bottle. If bottles are left in such a home, the milkman should not be allowed to collect them again until they have been properly disinfected by the board of health. At any rate, if there is a serious sickness in the home, all milk bottles should be boiled before being sent out of the house.

How to Handle Bulk Milk Delivered at the Home.

Milk dipped from a can or drawn from the faucet of a can may be a source of danger, and should be avoided where it is possible to get bottles of milk, according to the specialists of the Department of Agriculture. The air of city streets and houses is laden with dust and bacteria, and frequently particles of filth. Even if the milk is clean in the milkman's receptacle, the repouring of it into an open vessel or pitcher for the customer gives an excellent chance for floating disease germs to get into the milk. In stores where dipped milk is sold, filthy conditions often prevail, and milk is frequently handled most carelessly. Clerks and even customers at times frequently drink out of the milk dipper. It is dangerous to give such milk to children and invalids, and at best it is not a clean food. Milk drawn from the faucet of a milk-dealer's can, while not exposed to the air so long as dipped milk, also has the disadvantage of not being thoroughly mixed. Some consumers therefore receive less than their share of cream.

If bottled milk cannot be obtained, try to have the milk delivered personally to some member of the family, and receive it in a scalded covered vessel that has not been exposed to the air of a room or street. Otherwise set out a scalded covered dish or bowl, or a glass preserving jar with a glass top without a rubber band. In no case should an uncovered vessel be used. Milk should be taken into the house immediately on delivery, or if this is impossible, it should be placed in an outside refrigerator, or the outside door of the refrigerator in the house, if its ice-box opens to the outside. Cleanliness in the handling of milk is as necessary in the home as in the production of milk on the farm. Milk must be kept at low temperature at all times, to prevent growth of bacteria and subsequent souring. It should be kept in closed vessels as far as possible. The consumer should insist on having bottled milk delivered, and if this is impossible should at least see that the milk after delivery suffers no additional contamination.

How to Keep Milk Where Ice Is Scarce.

To aid persons who find ice difficult to obtain to keep their household milk in better condition than if it is allowed to stand around in heated rooms, the dairy experts of the Department of Agriculture have issued the following recommendations:

If it is impossible to procure ice, the milk bottle can be kept cooler than the surrounding air by keeping it in a jar or pail of running water. Where it is impossible to use running water from a faucet, wrap the bottle in a damp cloth and put it in a current of air. This method will keep the milk a few degrees cooler than if left simply in the air. The use of ice, however, is always preferable.

If there is no refrigerator in the house, an inexpensive ice-box for keeping milk cool in summer can easily be made by putting about two inches of sawdust or excelsior in the bottom of a small wooden box about 18 inches long, 12 inches wide, and 14 inches deep. Into this set a covered jar or tin bucket about 8 inches in diameter and tall enough to hold a small milk bottle. A stone jar is better than a tin pail, as it will not rust nor grow leaky. Pack sawdust around the outside of the pail or jar, place the milk bottle in the pail, and place cracked ice around the bottle. Put a cover on the pail or jar. Lay several thicknesses of newspaper on top of the pail and close the lid of the wooden case.

MILK IN RED BOTTLES.

The discovery is said to have been made that milk kept in red bottles will remain sweet and pure longer than when kept in plain glass or other colored bottles. Experiments have been made with the spectrum to determine which of the rays of light affect milk, and it has been found that it is the rays toward the violet end of the spectrum that do the mischief. The red ray is stronger and more penetrating, and probably has some neutralizing effect upon the lacteal microbe. If experiments confirm the theory that the red bottle preserves the milk better than the bottle now in use the red bottle should be adopted generally.

Recent Laws and Rulings

PENNSYLVANIA COLD STORAGE RULING.

Dairy and Food Commissioner Foust of Pennsylvania has issued the rules and regulations for the enforcement of the cold storage act of 1913. This law went into effect August 14, 1913. The rules and regulations are as follows:

COLD STORAGE WAREHOUSE LICENSES.

1. No person, firm or corporation shall, on or after August 14th, 1913, operate a cold storage warehouse within the Commonwealth of Pennsylvania without a license issued by the Department of Agriculture, through the Dairy and Food Commissioner.

2. A separate license is required for each separate warehouse building.

COLD STORAGE DEFINED.

3. The term "cold storage," as used in these Rules and Regulations, means the storage of food, at or below a temperature forty degrees (40°) Fahrenheit, in a cold storage warehouse.

COLD STORAGE WAREHOUSE DEFINED.

4. The term "cold storage warehouse," as used in these Rules and Regulations, includes all establishments, buildings, rooms, or places, whatsoever, cooled by ice by refrigerating machinery, or any other artificial means, in which articles of food are stored, for thirty (30) days or more, at a temperature of forty degrees (40°) Fahrenheit, or under.

FRESH FOODS TRANSPORTED IN REFRIGERATOR CARS.

5. Nothing in these Rules and Regulations shall be construed to prohibit the shipping, consigning, or transporting of fresh food, as defined in Regulation No. 7, in properly refrigerated cars, from one point to another within this State, nor, when received, to prohibit the same being held in a cooling room, whether said room be part of a cold storage warehouse or not, for a period of forty-eight (48) hours. Fresh food so transported and so held for forty-eight (48) hours or less does not thereby become cold storage food; but should the cooling room be a cold storage warehouse, or part thereof, and the food so transported be therein held for a period exceeding forty-eight (48) hours, it thereby becomes cold storage food and is subject to all the rules and regulations governing the same.

FOOD DEFINED.

6. The term "food," as used in these Rules and Regulations, includes the fresh flesh of animals, fresh products therefrom, the fresh flesh of fowls, fresh food fish, eggs and butter.

LIMITATIONS OF THE WORD "FRESH."

7. The word "fresh" as used in Regulation No. 5, will not be regarded as applicable to foods that are not the product of animals, fowls, or fish recently slaughtered, or to foods that have previously been held in cold storage, or that have been treated, for their preservation, with any preservative substance; PROVIDED, however, that the addition of salt, spices, etc., in such quantities as are commonly employed for purely condimental purposes, shall not be regarded as made for the purpose of preservation.

CONDITIONS FOR THE ISSUE OF LICENSES.

8. Cold storage warehouse licenses will be issued only upon
 (a) The filing of a written application therefor;
 (b) The payment of the legally prescribed license fee, and
 (c) The certification that the warehouse to be licensed is in a sanitary condition and properly equipped for the purpose of cold storage.

APPLICATION.

9. The written application, blank form for which will be supplied by the Dairy and Food Commissioner upon request, must specify definitely the location of each warehouse for which license is desired, and the kind or kinds of "food" to be therein cold-stored, and must be signed by the person, firm, or proper officer of the corporation applying for the license.

FEE.

10. The legally prescribed cold storage warehouse license fee is fifty ($50) dollars, and is payable by certified check, cashier's check or money order, drawn to the order of the Dairy and Food Commissioner.

CERTIFICATION OF APPLICATION.

11. Before any license will be issued, the fitness of the warehouse, as respects sanitary condition and equipment for the purposes of cold storage, must be certified by an expert agent, appointed therefor by the Dairy and Food Commissioner, after such agent shall have duly examined the said warehouse. Should said expert agent report that said warehouse, or any portion thereof, is in any respect unsanitary or unfit in equipment for use as a cold storage warehouse, no license therefor will be issued until said warehouse, or designated part thereof, shall have been put into the required condition of fitness.

PERIOD COVERED BY LICENSE.

12. A cold storage warehouse license will take effect upon the date of its issue by the Dairy and Food Commissioner, or his duly authorized agent, and will extend through the period of one year, unless earlier suspended or revoked for cause by said Dairy and Food Commissioner. (See Regulation No. 44.)

CONDITION OF FOOD AT THE TIME OF ENTRY FOR COLD STORAGE.

13. All food offered or accepted for cold storage must be in good, sound, sanitary condition at the time of original entry.

14. No diseased, tainted or otherwise unwholesome food may be placed in any cold storage warehouse, or kept therein.

15. A food will be deemed "wholesome" only when it is in all respects fit for human consumption.

16. No slaughtered animals or parts thereof may be placed in any cold storage warehouse unless the entrails and other offensive parts have first been properly removed.

17. The owner of food offered for cold storage will be held primarily responsible for its being in proper condition for such storage; PROVIDED, however, That in case the cold storage warehouse man accepting any food not in proper condition for entry, shall have permitted its entry with knowledge of its unfit condition or without reasonable precaution as to its being in proper condition, said warehouse-man will be held likewise responsible, and may be prosecuted for violation of the law.

PERIOD OF COLD STORAGE.

18. The greatest lenghts of time during which the several foods, intended for sale, may legally be held in cold storage are as follows:
 (a) Whole carcasses of beef, or any part thereof, 4 months.
 (b) Whole carcasses of pork, or any part thereof, 6 months.
 (c) Whole carcasses of sheep, or any part thereof, 6 months.
 (d) Whole carcasses of lamb, or any part thereof, 6 months.
 (e) Whole carcasses of veal, or any part thereof, 3 months.
 (f) Dressed fowl, drawn, 5 months.
 (g) Dressed fowl, undrawn, 10 months.
 (h) Eggs, 8 months.
 (i) Butter, 9 months.
 (j) Fish, 9 months.

TRANSFER TO OTHER COLD STORAGE WAREHOUSE.

19. Foods that have been held in cold storage for some time in one warehouse may be transferred to another cold storage warehouse either in clean, properly refrigerated cars, or, for transfer through short distances, in clean vehicles, under such cover as will prevent access of dust, flies, etc., and under such conditions as shall prevent the thawing or marked increase in temperature of the foods. The time spent in the transfer shall be considered as included in the storage peroid.

STORAGE LIMITS FOR FOODS IMPORTED FROM COLD STORAGE WAREHOUSES.

20. The maximum time limits of cold storage stated in Regulation No. 18 apply equally to cases in which the respective foods have been held within this State during the entire period of cold storage, and to those in which they have been held, during part or all of this period of cold storage within another State or States.

STORAGE LIMITS FOR FOODS PLACED IN STORAGE PRIOR TO AUGUST 14TH, 1913.

21. The maximum time limits, specified in Regulation No. 18, apply to all foods held in cold storage on or after August 14th, 1913, but placed in cold storage, within this State or elsewhere, prior to that date.

FOODS WITHDRAWN FOR SALE MUST NOT BE RE-STORED.

22. No food that has been withdrawn from a cold storage warehouse for the purpose of placing it on the market for sale, may be returned for cold storage to the same or to any other warehouse or warehouses.

MARKING OF COLD STORAGE FOODS AT THE TIME OF ENTRY.

23. All food, other than fresh fish, placed in a cold storage warehouse shall be plainly marked, upon the container, by the warehouse-man, at the time of its deposit, with the date of the deposit or entry. If the food be not in a container, such marking shall be placed on the food, or on a tag or label securely and permanently attached thereto.

MARKING OF COLD STORAGE FISH.

24. When fresh fish are originally entered in a cold storage warehouse, the manager of the warehouse may, instead of marking the fish with the day of entry, mark upon the walls or door of the room in which the fish are stored, the month and year of their entry for storage; but when fish thus marked are withdrawn from storage, the month and year of original entry shall be marked upon the container, in the manner prescribed in Regulations Nos. 23, 32, 33 and 34, for other foods; and this mark of month and year will, in the case of fish so stored, be deemed a full compliance with the requirements as to *entry dating*.

25. The word "container," as used in these Rules and Regulations, means any bag, barrel, basket, bottle, box, caddy, can, canister, carton, crate, firkin, hogshead, jar, jug, keg, stopper, vessel wrapper, frozen bulk, or any similar or analagous utensil, receptacle, band or wrapper in which food may be kept, stored, sold or offered for sale.

26. The word "marked," as used in these Rules and Regulations, means written, printed, stamped or painted, or treated by any other means whereby words or figures may be indicated in or on container, or on any cover attached thereto.

MARKING OF FOODS ENTERED PRIOR TO AUGUST 14TH, 1913.

27. All foods held in cold storage upon the 14th day of August, 1913, by the cold storage warehouse situate within this Commonwealth, from entries made, in this State or elsewhere, at times prior thereto, must, before the said 14th day of August, 1913, be marked, in the manner prescribed by these Rules and Regulations, with the date of original entry for cold storage of said foods. This regulation applies alike to cases in which for the entire period of cold storage of said foods, they have been held in the same cold storage warehouse, and to those in which they have been, for part of the period, held in other cold storage warehouses, whether within this State or elsewhere. If, however, in the case of a food so transferred prior to August 14th, 1913, the warehouse-man to whom the food has been transferred, does not know and cannot ascertain the date of original entry of the food into cold storage, then in such case he shall mark the goods, in the manner set forth in Regulation No. 32, with the date of transfer.

AT THE TIME OF WITHDRAWAL FROM COLD STORAGE.

28. All cold storage food withdrawn from cold storage, on or after August 14th, 1913, shall be marked, upon the container thereof, or, if it be not held in a container, upon the food itself, with the date of the withdrawal, in addition to the date of the original entry of said food for cold storage, as prescribed in Regulations Nos. 23, 27 and 32.

MARKING OF TRANSFERRED FOODS.

29. In cases in which foods are transferred from one cold storage warehouse to another, they shall be marked, in addition to the dates of original entry and withdrawal, with the date of their entry into the cold storage warehouse to which they have been transferred; and upon their withdrawal therefrom, with date of such withdrawal.

MARKING OF COLD STORAGE FOODS ON SALE.

For Wholesale Sale.

30. Every person, firm or corporation, or agent thereof, who shall sell, offer or expose for sale, or hold in possession with intent to sell, at wholesale, any cold storage food, is required to mark and distinguish it, or to see that it is so marked and distinguished, on the outside of each container, or in a conspicuous position upon such container, if it be open, by a placard having the words "wholesome cold storage food" printed thereon. Such placard must be placed in a conspicuous position and in full view of the purchaser, and the said words, "wholesome cold storage food," shall be printed in plain, uncondensed gothic letters, not less than one-half (½) inch in length; and, in addition, all such food shall be marked with the date or dates when it had been placed in any cold storage warehouse, and with the date or dates of its withdrawal therefrom.

FOR RETAIL SALE.

31. Every person, firm or corporation, or agent thereof, who shall sell, offer or expose for sale, or hold in possession with intent to sell, at retail, any cold storage food, must mark and placard the containers in the manner prescribed in the preceding Rule No. 30, applying to wholesale sales, and, further, when cold storage food is sold from its container, or otherwise, at retail, before delivering it to the purchaser, the retailer must wrap, or cause it to be wrapped, in wrappers plainly stamped on the outside thereof with the words "wholesome cold storage food," printed or stamped thereon in letters one-fourth (¼) inch square, and such wrapper must bear the date of original entry of such food in cold storage; and the said words "wholesome cold storage food" and the date above specified, shall not be in any manner concealed, but shall be in plain view of the purchaser at the time of purchase.

FORM OF MARKS.

32. All datings shall give:

First, the abbreviation or number of the month;
Second, the day of the month;
Third, the year, in the usual, commonly understood form of expression, as Feb. 1, 1914; or 2-1-'14.

Entry datings shall be made within a circle, as
the datings of withdrawal for transfer to another cold storage warehouse, with parallelogram, as
and of withdrawal for sale, with a diamond, as

POSITION AND MATERIAL OF MARKS AND TAGS.

33. All marks required by these Rules and Regulations shall be made or attached, in a conspicuous position, upon the food or its container, and must be made and kept in readily legible condition. The ink, paint or other substance used in making the marks must be indelible, and any tags, pasters or other materials attached to bear the required marks must be securely attached or affixed to the food or its container, and must be strong and durable in quality.

SIZE OF MARKS.

34. The size of the figures and letters required for the dating of entries, transfers and withdrawals shall not be less than one-third (⅓) inch in length.

OTHER MARKS PROHIBITED.

35. No mark or marks, other than those required by these Rules and Regulations, to be marked upon cold storage food or upon the containers thereof, may, under penalty of the law, be placed upon the container of such food: Provided, however, that nothing in these Rules and Regulations shall be construed as applying to the marking of such container with the name and address of the owner thereof, nor as requiring the obliteration of any mark or marks required to be placed upon any food or its container by the U. S. Meat Inspection Regulations.

CHANGING AND OBLITERATION OF MARKS PROHIBITED.

36. Under penalty of the law, no person, firm or corporation, or agent of the same, shall change, or cause to be changed, any mark or marks required by these regulations to be placed upon any food or its container, after such mark or marks have been placed thereon.

WAREHOUSE STORAGE ACCOUNTS.

37. Every person, firm or corporation that shall be licensed to operate a cold storage warehouse is required to keep an accurate record of all receipts and withdrawals of food therefrom, including all data necessary to show:

(1) Name of owner or depositor of each lot of food re-received.
(2) Whether or not it was deposited as an original entry.
(3) If not, the dates of its original entry and withdrawal, and of every prior entry and withdrawal; also the manner and condition of its transfers.
(4) Its kind or kinds and quantity.
(5) Its condition at the time of entry.
(6) If withdrawn, in whole or in part, the date of withdrawal, the respective kinds and quantities withdrawn, the name or names of the parties withdrawing the same, and the specified purpose of withdrawal—whether for transfer to another cold storage warehouse or for sale upon the market.
(7) Also all other information needful for the preparation of the reports required by Regulations Nos. 38 and 39.

COLD STORAGE WAREHOUSE REPORTS.

Quarterly Reports.

38. Every person, firm or corporation licensed to operate a cold storage warehouse is required to file in the office of the Dairy and Food Commissioner, and upon such forms as he may, from time to time, prescribe and supply, on or before the sixth day of January, April, July and October, of each year, a report setting forth a summary of foods received for cold storage during the quarter ending with the last day of the calendar month immediately preceding the date of the report, a summary of the corresponding food withdrawals, and of the foods held in cold storage at the end of said quarter. In these reports above required data shall be given for each kind of food entered or held in storage at any time within the quarterly period concerned.

Special Reports.

39. Special reports for shorter periods shall be made when the Dairy and Food Commissioner shall so require.

EXAMINATION OF WAREHOUSES AND FOODS OFFERED FOR OR HELD

IN COLD STORAGE.

40. Duly authorized agents of the Dairy and Food Commissioner shall, at all reasonable times, have access to all cold storage warehouses for the examination of the warehouse as to the sanitary condition, for the examination of the foods offered for entry and stored therein, as to their being marked in conformity with the requirements of these Rules and Regulations, as to the manner of their transfer, and as to their nature and condition. For the purpose of examination of the foods, such agents may, so far as they deem necessary for the purpose, open any food container and secure for examination a portion or portions of the contained food.

AGENTS' REPORTS OF COLD STORAGE WAREHOUSE EXAMINATIONS.

41. The agents of the Dairy and Food Commissioners are required to report to said Commissioner, at the time of their weekly report next following the date of the warehouse examination, or at an earlier time, should they deem it desirable or the Commissioner so order, the results of their examination into the sanitary condition of the warehouse, the marking of the foods therein stored, the taking of samples for examination as to the wholesomeness, of said foods, and the condition of the accounts, in so far as these several points shall have been involved in their examination. These reports shall, in case of any observed lack of sanitary condition of the warehouse or any part of the same, include a specification of the defect, with a recommendation of the change required to remedy the same; also a statement in detail, of all foods found lacking any of the required marks or found unwholesome, with an account of the affixing to the latter of the red tags or pasters described in Regulation No. 45, and, in the case of unwholesome eggs, of the denaturing of the same, and of notification having been given to the manager of the warehouse requiring the disposal of the unwholesome food as prescribed by Regulation No. 39; and, said agents shall also report to the said Commissioner the compliance or non-compliance of the manager of the warehouse with directions earlier issued to him by the Dairy and Food Commissioner for the remedying of sanitary defects; together with such observations as the said agents shall deem desirable for the enforcement of the law.

WARNING NOTICE OF UNSANITARY CONDITION.

42. Promptly upon the receipt from an authorized agent of a report showing the existence of any unsanitary condition in a cold storage warehouse, the Dairy and Food Commissioner will, if he approve said report, and deems the defect not to be such as to require closure of the part or whole of the warehouse, issue or cause to be issued to the manager of the warehouse in question, a notice of the reported defect, together with a specification of the required remedy and of the date by which the defect must be remedied. If the required change is not made within the time specified in said notice, a closure order, as described in Regulation No. 43, will be made by the Dairy and Food Commissioner.

UNSANITARY CONDITION AND CLOSURE OF WAREHOUSE.

43. Whenever any warehouse license under this provision of the Cold Storage Act of 1913, or any portion of such warehouse, shall be deemed by the Dairy and Food Commissioner to be in a seriously unsanitary condition, it must, upon notice from said Commissioner, be closed until put in sanitary condition; and it is unlawful for any person, firm or corporation to operate any such warehouse, or portion thereof, when the same shall have closed by order of said Commissioner..

SUSPENSION AND REVOCATION OF LICENSES.

44. If the changes required in the closure notice mentioned in Regulation No. 43 be not made within a reasonable time after the issue of such closure notice, the Dairy and Food Commissioner may suspend or revoke the license granted for the operation of the warehouse concerned.

MARKING AND DENATURING OF UNWHOLESOME FOODS.

45. Foods held in cold storage warehouses and found upon examination to be diseased, decomposed, or in any other respect not wholesome, or to have been entered in violation of Regulations Nos. 14 and 16, shall be marked by the official agent, "not wholesome," "unfit for use as food." Said marks shall be printed or otherwise indicated upon an official red tag or paster, which shall be securely affixed upon or attached to the food or its container. In the case of eggs found decayed or otherwise not wholesome, the official agent shall, in addition to marking the same in the manner hereinbefore described, require such eggs to be deatured in accordance with the provisions of the Act of April 11th, 1913.

DISPOSAL OF UNWHOLESOME FOODS.

46. Every person, firm or corporation operating a cold storage warehouse shall, upon the discovery by himself or by an official agent of the Dairy and Food Commissioner, that any food held in said warehouse is not wholesome immediately remove said unwholesome food from the room or rooms used for storing other lots of food, and shall reqiure the owner thereof, immediately to withdraw the said food from the warehouse.

SALE OF UNWHOLESOME FOOD.

47. No person may sell for food purposes, food that is not wholesome; but nothing in these regulations shall be construed to prohibit the sale of such unwholesome food for rendering, the manufacture of tankage, or similar technical purposes.

EXAMINATION OF WAREHOUSE ACCOUNTS.

48. The warehouse storage accounts required by Regulation No. 37, together with all other records that may be kept in connection with the operation of the warehouse concerned, shall be open, at all reasonable times, to examination by the duly authorized agents of the Dairy and Food Commissioner.

These Rules and Regulations are subject to revision, from time to time, as may be requisite for the proper enforcement of the law.

(Signed) JAMES FOUST,
Dairy and Food Commissioner.

Harrisburg, Pa., July 14th, 1913.

COMMODITIES BILL A LAW.

One of the important bills passed by the legislature of Pennsylvania is the "Commodities Bill," recently signed by the governor.

The full text of the new law is as follows:

AN ACT defining commodities, regulating the sale thereof and providing penalties for violation hereof.

Section 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, That the word "commodity," as used in this act, shall be taken to mean any tangible personal property sold or offered for sale.

Sec. 2. All liquid commodities, when sold in bulk or from bulk, shall be sold by weight or liquid measure. All dry commodities, when sold in bulk or from bulk, shall be sold by weight, dry measure or numerical count. No dry commodities shall be sold by liquid measure. Dry commodities in carload lots may be sold by weight.

Sec. 3. It shall be unlawful to use a measure without a bottom in selling any commodity.

Sec. 4. It shall be unlawful in selling any commodity to use any measure unless the same shall have thereon marked in distinct letters and figures the capacity thereof. If such measure be of the capacity of one-half bushel or less, or of one-half gallon or less, it shall be marked in terms of a quart, dry or liquid measure, respectively. If the measure be of the capacity of over one-half bushel or one-half gallon, it shall be marked in terms of a bushel or gallon, respectively.

Sec. 5. It shall be unlawful for any person, firm or corporation, with intent to defraud:

(1) To sell or offer for sale any commodity on the container of which is marked any false statement respecting the kind, number, quantity, weight or measure of such commodity, or of any part thereof respecting the place or county where such commodity was manufactured or produced, or respecting the quality or grade of such commodity.

(2) To orally or otherwise represent that any commodity offered for sale in bulk to which no name or trade mark shall be attached is the manufacture or production of some other than the actual manufacturer or producer; provided, that nothing in this act is to be constructed as applying to drugs, medicines, chemicals or pharmaceutical or proprietary preparations used as medicine, nor to toilet preparations.

Sec. 6. Whenever any commodity named in this section shall be sold by the bushel, the bushel of such commodity shall consist of the respective number of pounds herein set forth, namely:

Alfalfa seed, sixty pounds.
Apples, fifty pounds.
Apples, dried, twenty-five pounds.
Barley, forty-seven pounds.
Beans, dried, sixty pounds.
Beans, castor, shelled, forty-six pounds.
Beets, sixty pounds.
Blue grass seed, fourteen pounds.
Bran, twenty pounds.
Broom corn seed, fifty pounds.
Buckwheat, forty-eight pounds.
Cabbage, fifty pounds.
Carrots, fifty pounds.
Cement, one hundred pounds.
Charcoal, twenty pounds.

Cherries, with stems, fifty-six pounds.
Cherries, stemmed, sixty-four pounds.
Chestnuts, hulled, fifty pounds.
Clover seed, sixty pounds.
Coal, anthracite, seventy-five pounds.
Coal, bituminous, seventy-six pounds.
Coal, stone, eighty pounds.
Coke, forty pounds.
Corn, shelled, fifty-six pounds.
Corn, ear, husked, seventy pounds.
Corn meal, fifty pounds.
Cranberries, forty pounds.
Cucumbers, fifty pounds.
Currants, forty pounds.
Flaxseed, fifty-six pounds.
Gooseberries, forty pounds.
Grapes, forty-eight pounds.
Hair, plastering, eight pounds.
Hemp seed, forty-four pounds.
Herd's grass, forty-five pounds.
Hickory nuts, fifty pounds.
Hominy, sixty pounds.
Horseradish, fifty pounds.
Hungarian grass seed, fifty pounds.
Kaffir corn, fifty-six pounds.
Lentils, sixty pounds.
Lime, seventy pounds
Linseed, fifty-six pounds.
Malt, thirty-eight pounds.
Millet, fifty pounds.
Oats, thirty-two pounds.
Onions, fifty pounds.
Onion sets, twenty-eight pounds.
Orchard grass seed, fourteen pounds.
Parsnips, fifty pounds.
Peaches, forty-eight pounds.
Peaches, dried, peeled, thirty-eight pounds.
Peaches, dried, unpeeled, thirty-three pounds.
Peanuts, twenty-two pounds.
Pears, dried, fifty pounds.
Peas, green, unshelled, fifty-six pounds.
Peas, sixty pounds.
Plums, sixty-four pounds.
Popcorn, unshelled, fifty-six pounds.
Potatoes, sixty pounds.
Potatoes, sweet, fifty-four pounds.
Quinces, forty-eight pounds.
Rape seed, fifty pounds.
Raspberries, forty-eight pounds.
Red top grass seed, fourteen pounds.
Rice, rough, forty-five pounds.
Rutabagas, sixty pounds.
Rye, fifty-six pounds.
Rye meal, fifty pounds.
Salt, coarse, eighty-five pounds.
Salt, ground, sixty-two pounds.
Sand, one hundred pounds.
Shorts, twenty pounds.
Sorghum seed, fifty pounds.
Spelt, forty pounds.
Strawberries, forty-eight pounds.
Timothy grass seed, forty-five pounds.
Tomatoes, sixty pounds.
Turnips, sixty pounds.
Walnuts, common, fifty pounds.
Wheat, sixty pounds.

Sec. 7. If in package form, the quantity of the contents shall be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; provided, however, that reasonable variations shall be permitted, and tolerances and also exemptions as to small packages shall be established by rules and regulations made by the chief of the Pennsylvania Bureau of Standards.

Sec. 8. Each person, firm or corporation that shall violate any of the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof before any alderman, magistrate or justice of the peace of the proper county, for first offense shall be fined not more than $25; upon conviction for the second offense, such person, firm or corporation shall be fined not less than $25 nor more than $100, and upon conviction for the third and each subsequent offense, such person, firm or corporation shall be fined not less than $100 nor more than $250.

Sec. 9. It shall be the duty of the proper city and county inspectors of weights and measures to enforce the provisions of this act.

Sec. 10. This act shall go into effect the first day of January, 1914; provided, however, that no penalty shall be enforced for any violation of its provisions as to domestic products prepared, or foreign products imported, prior to eighteen months after its passage.

Sec. 11. All acts and parts of an act general, local or special inconsistent with any of the provisions of this act are repealed.

WEIGHTS AND MEASURES.

Special Bulletin No. 25.

The last legislature passed a new weights and measures law placing the operation of the same in charge of the State Dairy and Food Department. This law takes effect on August 15th. Under the law the state dairy and food commissioner becomes superintendent of weights and measures for the state and his deputies become inspectors of weight and measures. He is also given authority by the law to prescribe rules and regulations for weights and measures in the state. One of the greatest abuses in the state is the so-called bottomless peck measure. This measure is about the size of a stovepipe in diameter and the ostensible object of this small diameter is so that it can be slipped into a paper bag and the commodities measured will be in the bag on the withdrawal of the measure. This measure contains the same number of cubic inches that the ordinary flat peck measure contains but owing to its peculiar shape, in the measuring of commodities like apples or potatoes, it is impossible to get a peck of those commodities in this measure. A bushel of potatoes under the Michigan law weighs 60 lbs. and a peck of potatoes should therefore weigh 15 lbs., but in the bottomless peck measure only 12 lbs. of average size potatoes can be placed therein. The use of this measure gives the dealer five pecks to every bushel. The use of this measure has been condemned by other states and on and after August 15th its use in Michigan will become illegal under the regulations that will be issued by the state superintendent of weights and measures. Dealers and consumers will take notice accordingly.

It has been customary throughout the state for grocers to sell dry beans and like commodities in a tin quart measure. This tin quart measure holds a liquid quart, which is about 10 cubic inches less than a dry quart measure holds. As a result a bushel of beans which contains 32 quarts when measured out to the consumer in a tin quart measure will measure 37 quarts and the consumer is therefore deprived of 5 quarts of beans on every bushel he buys. After August 15th all commodities not liquid must be sold by dry measure, a quart of which contains 67⅕ cu. ins. Under regulations to be issued August 15th by the superintendent of weights and measures, the use of liquid measures in selling dry commodities is prohibited and a failure to observe this law will invite prosecution. Inspectors of this department are notified to warn all dealers against the use of bottomless peck and half peck measures after August 15th and also against the use of liquid quart measures when selling any commodity not liquid.

James W. Helme,
State Dairy & Food Commissioner of Michigan.

WORLD'S REFRIGERATION CONGRESS.

Plans are being completed for the Third International Congress of Refrigeration, to be held in Chicago September 15 to October 1. This will mark the first time that the big triennial gathering has been held in the United States.

President Wilson has been named as sponsor for the Congress, while Secretary of Agriculture Houston is honorary president of the body. Among other prominent men who will be actively identified with the undertaking are Dr. Harvey W. Wiley, Dr. Alex C. Humphreys, president of Stevens Institute of Technology; Dr. S. W. Stratton and C. W. Waidner of the Bureau of Standards, Washington, D. C.; W. C. Brown, president of the New York Central Lines; Congressman James R. Mann, of Illinois, and others. Dr. Frank W. Gunsaulus, president of Armour Institute, Chicago, is president of the congress and will preside over its general meetings.

Official representatives of more than forty European and other foreign governments are to participate in the gathering, and delegates from almost every civilized country in the world are among those who will attend.

Concurrent with the congress will be held an International Refrigeration Exposition, to occupy the entire 75,000 square feet of floor space of the International Live Stock Exposition building at the Chicago Stock Yards.

HANDLING LIVE STOCK.

It is ordered that Regulation 25 of the regulations of the secretary of agriculture governing the inspection, disinfection, certification, treatment, handling, and method and manner of delivery and shipment of live stock which is the subject of interstate commerce, dated March 22, 1907, and effective on and after April 15, 1907 (B. A. I. Order 143), be, and the same is hereby, amended to read as follows:

Regulation 25.—The dips now approved by the department are the lime-and-sulphur dip, the tobacco-and-sulphur dip, the tobacco dip, and Beaumont crude petroleum. The lime-and-sulphur dip is made in the proportion of 12 pounds of unslaked lime and 24 pounds of flowers of sulphur to 100 gallons of water. The tobacco-and-sulphur dip is made with sufficient extract of tobacco or nicotin solution to give a mixture containing not less than five one-hundredths of 1 per cent of nicotin and 2 per cent flowers of sulphur. The tobacco dip is prepared from tobacco or from suitable tobacco products containing nicotin so as to produce a dipping bath which shall contain not less than seven one-hundredths of 1 per cent of nicotin. When Beaumont crude petroleum or similar oil or an emulsion thereof is used as a dip or spray for cattle diseased with or exposed to scabies, one dipping or spraying only is necessary. The department disclaims responsibility for any loss or damage resulting from the dipping or spraying.

The effect of this amendment is to provide for the use of tobacco dip without the addition of 2 per cent of flowers of sulphur and to require that when tobacco or tobacco products are used without sulphur the dipping bath shall contain not less than seven one-hundredths of 1 per cent of nicotin.

Effective on and after August 18, 1913.

B. T. Galloway, Acting Secretary.

VIOLATE COLD STORAGE LAW.

E. F. Ladd, Food Commissioner of North Dakota, has addressed a letter to the grocers and meat dealers throughout the state calling attention to the cold storage law. The commissioner maintains that every cold storage plant in North Dakota is violating the law. His communication follows:

"Dear Sir: Are you familiar with the requirements of the Cold Storage Law? Every cold storage plant in North Dakota is now being run in violation of the law. None is licensed; none has made application for registration; and all are, therefore, liable to a heavy fine.

"As a dealer, are you aware that the sale of cold storage products without strict compliance with the law renders you liable to a fine? There must be displayed in your store a sign: 'Cold Storage Goods Sold Here.' Each and every package or container going to the consumer must bear a tag, or sticker, or mark, plainly and conspicuously showing that the goods are cold storage. The consumer is entitled to this information, and, on complaint, parties violating the law are liable to prosecution.

"You should write at once for information with regard to the requirements of the law, and cold storage or refrigerating warehouse managers should secure a license for conducting the same.

(Signed) "E. F. Ladd, Commissioner."

"OLEO" LAW IN EFFECT.

The new oleomargarine law went into effect in Minnesota August 1. The law provides that all manufacturers must label all receptacles containing the goods with the word "oleomargarine."

The letters on the label must be large and the name of each animal or vegetable from which oils or fats used in the goods have been derived must appear on the label.

The word "oleomargarine" must be printed on the bills of fare of hotels or boarding houses if it is used. Retailers must wrap the product in a special covering bearing the name and address of the seller, the quantity sold and the address of the manufacturer.

Violators will be fined not less than $50 nor more than $100 or will be imprisoned not less than 30 days.

IDAHO FOOD BULLETIN.

The quarterly bulletin of the Idaho Food Commission is a vigorous pamphlet in which is set forth the statements of the food commission warning dealers in food products against the folly of violating the law. Commissioner Wallis purposes to keep up his warfare on impure foods and unsanitary food factories until the old order of things is completely changed. The bulletin issued contains the new laws passed by the legislature, and much valuable information for manufacturers and distributors of foodstuffs.

SHIPPING ACT INVALID.

The Johnson cream shipping bill passed by the last legislature of Minnesota, after several years of agitation, was declared invalid and given a severe scoring by Judge F. M. Catlin in Ramsey County District Court. Declaring that the law, which prohibits shipments of cream more than sixty-five miles in Minnesota except in refrigerator cars or when pasturzed, is not a legitimate exercise of the police power, Judge Catlin granted a temporary injunction on request of the Milton Dairy Company of St. Paul, restraining the railroad companies from refusing to accept shipments of cream for more than sixty-five miles, and restraining Attorney General Lyndon A. Smith from bringing any action to compel the railroad and express companies to comply with the law.

SANITARY LAW OF IOWA.

The sanitary law of Iowa, which went into effect July 4, 1913, covers the sanitation of buildings, equipments, etc., very fully. The law provides that proper buildings only shall be used for the preparation of food products, and it further provides that these shall be kept clean, properly screened and in other ways kept in a sanitary condition. Living in work rooms is prohibited, and diseased persons will not be permitted to handle food products. Displays of food products on sidewalks are prohibited unless such food shall be properly screened.

BAKING POWDER RULING.

Baking powder in the State of North Dakota, October 1, 1913, and not in violation of the previous rulings and regulations need not be withdrawn from the state January 1, 1914, provided the new stocks of said baking powders coming into the state are in compliance with the regulations recently promulgated.

E. F. Ladd,
Dairy and Food Commissioner.

IOWA FOOD BULLETIN.

The Iowa Dairy and Food Commissioner has issued a bulletin covering the sanitary law, foods, dairy products, weights and measures, foodstuffs, stock food, seed, paints, linseed oil, turpentine, commercial fertilizer, calcium carbide and cold storage. The matters under these various heads are fully and clearly treated, so that those who have a desire to observe the law may understand what is expected of them.

TRADE PRESS CONVENTION.

Members of the Trade Press Association will meet in New York at the Hotel Astor, September 18-20, for their eighth annual convention. An elaborate program has been arranged. In addition to the business meetings there will be a banquet which will be given on the evening of September 19.

BILL AGAINST BENZOATE FAILS.

An effort was made to have a law passed in Pennsylvania against the use of benzoate of soda. It failed of passage, so that the old law permitting the use of this preservative, according to regulations, still prevails.

The federal bureau of chemistry has issued a statement that farmers' cider vinegar is satisfactory provided it is made simply from the juice of apples. Dealers have fought shy of the cider vinegar produced by farmers, and the farmer has permitted great quantities of apples to rot because of the prejudice that had grown against his vinegar. The statement from the bureau of chemistry was made for the purpose of reassuring farmers and dealers.

The Ozark Cider and Vinegar Company of Siloam Springs, Arkansas, have secured the services of Mr. J. W. Johnson, who resigned his position as chemist and food and drug inspector of the Department of Health of Oklahoma. Mr. Johnson will be superintendent of manufacturing for the Ozark company and took charge of his new position August 6.

"You forgot to get that silk for me?" she asks. "Why, I tied that strip of cloth around your finger this very morning to remind you of it."

The husband stares blankly at the strip of cloth and then says:

"Well, I'll be jiggered! And here I've been trying all day to remember how I hurt my finger!"

Survey of the Food World

ADULTERATED EXTRACTS.

The Department of Agriculture has published five notices of judgment against shippers of flavoring extracts, four of which also comprise judgments for misbranding.

Herman Fuchs of New York City pleaded guilty in two of these cases, of shipping adulterated and misbranded strawberry flavor and vanilla extract. It was found that both products were imitation extracts.

Analysis by the Bureau of Chemistry showed the so-called "strawberry flavor" to be a substance composed chiefly of water, alcohol, sugar and artificial esters, colored with an aniline dye to imitate the coloring of strawberries. It was charged that the coloring of the product by this dye aided in concealing its inferiority. Misbranding was alleged for the reason that the label was false and misleading, in that it indicated a true strawberry flavor whereas it was not true strawberry flavoring but an imitation.

The adulteration alleged against vanilla extract was that a preparation consisting of alcohol, water and artificial vanillin had been mixed with the product so as to reduce and injuriously affect its strength and quality. The misbranding was alleged because the label indicated that the product was an extract of the vanilla bean, whereas analysis showed it to consist of the ingredients above stated. The label read "Vanilla Extract—Guaranty Legend, Serial No. 6492, H. Fuchs, Importer, Manufacturer and Dealer in Fine Essential Oils and Flavoring Extracts. 173 West Broadway, Co. Worth Street, New York."

The court suspended sentence in both these cases. Shipment of adulterated and misbranded vanilla extract was also the charge against the Hudson Manufacturing Company, a corporation of Chicago, Illinois, judgment of which, in favor of the Government, has just been published. This corporation, it was alleged, in violation of the Food and Drugs Act, shipped a quantity of so-called vanilla extract from the state of Illinois into the state of Texas.

The particulars of the Government's adulteration charge were that an imitation had been substituted in part for the product named on the label and that imitation was found to contain vanilla, coumarin and artificial coloring matter. It was further charged that the artificial coloring served to conceal the inferiority of the extract by making it resemble the genuine. Misbranding was alleged for the reason that it was an imitation of another article of food and that it was offered for sale under the distinctive name of that other article, namely, "pure vanilla extract," and for the reason that label represented to the purchaser that the product was the genuine vanilla extract conforming to the commercial standard, whereas in fact it contained only 2 grams of the vanilla bean, and should have contained not less than 10 grams to conform to the standard. The product was labeled "Mexican Vanilla, Tonka Extract."

On February 20, 1913, at the conclusion of the introduction of evidence by the Government, the defendant withdrew his former plea of not guilty, and thereupon the court imposed a fine of $100 and costs.

Another case won by the Government against this Chicago corporation concerned a product labaled "Prime Vanilla Extract, made from the extractive matter of prime vanilla beans, sweetened with cane sugar, aged in wood, made by the Hudson Manufacturing Company, Chicago, U. S. A." It was alleged that this product was below the commercial standard for vanilla bean required and that it was artificially colored. The defendant was fined $50 and costs.

The fifth case won by the Government was against Sethness Company, another Chicago corporation, which was found guilty of shipment into Texas of concentrated peach flavor, strawberry oil, pineapple oil, and banana oil. The peach flavor was alleged to be adulterated by reason of substitution for genuine peach extract, of a dilute solution of alcohol and vanillin and a non-volatile matter colored with coal-tar dyes, known as "Amaranth and Naphthol Yellow S."

PTOMAINES AND SULPHITES.

Recently at Ann Arbor a student ate a hamburger sandwich and died within twelve hours from ptomaine poisoning. As we explained in a recent bulletin the ptomaine poison is formed in decaying animal products. It is a chemical poison that no amount of heat will destroy. The reason it occurs more frequently in hamburger and sausage is because of the tendency of some butchers to retain the meat on the block until it is no longer salable in its original form—then it goes to the grinder for hamburger or sausage.

Right here is where many butchers use a preservative known as "Sulphites." But for the addition of sulphites this stale meat would not be salable as hamburger or sausage. Sulphites preserve and embalm the meat from further decay by making it insoluble and imputrescible. The process of digestion is one of decomposition. Sulphites are not only injurious to health in themselves, but by preventing decomposition in the stomach injure the food product and make it indigestible. The great danger in the use of sulphites is that it may preserve hamburger or sausage in an apparently salable condition after decomposition has set in and ptomaine may have formed in the meat. It is a wise precaution for a consumer who likes hamburger steak to select the meat and have it ground in his presence. When you see hamburger of a very bright, glary and unnatural red, the probabilities are that it has been embalmed.

The use of preservatives containing sulphites is forbidden by the laws of this state. This department has in the past issued many warnings against the use of this preservative. In the future all cases of sulphite preserved meat will be vigorously prosecuted.

James W. Helme,
State Dairy and Food Commissioner.

WHEN MILK ROTS.

Scientists of the dairy division of the department of agriculture August 1 made public the result of a series of experiments in pasteurization of milk. As the result of the tests it is recommended that when milk intended for the market is pasteurized "it should be heated to about 145 degrees Fahrenheit and held at that temperature for thirty minutes." The scientists found that pasteurization at high temperature was destructive of many of the healthful and body building qualities of the fluid.

"When milk is pasteurized at 145 degrees for a half hour," the experts declare, "the chemical changes are so light that it is unlikely that the protein (muscle building elements) or the phosphates of lime and magnesia are rendered less digestible than they are in raw milk."

Pasteurization at high temperature is discouraged because it was found that the bacteria which survived the operation were largely of the putrefactive kind. This condition had a tendency to make the milk rot instead of sour.

DEMANDS FULL MEASURE.

The United States Department of Agriculture has issued a notice of judgment in the case of the United States vs. Scudder Syrup Company, tried in the Northern District of Illinois. The chief contention of the government was that the quantity of Scudder's Canada Syrup, shipped in interstate commerce, was misbranded. The product was labeled on the case, "Two Doz. Purity Quarts Scudder's Canada Syrup, Imported only by Scudder Maple Syrup Company, Chicago, Ill., Full Measure." Examination of the goods showed that the cans failed to contain a full quart and contained only 93.8 per cent of a quart. The jury returned a verdict of guilty and the court imposed a fine of $50 and costs. In his charge to the jury Judge A. E. Anderson included the following remarks:

SEIZURE OF HOG CASINGS.

The first seizure of meats or meat products by federal meat inspectors under their new jurisdiction of the pure food department was made July 31 by Joseph Buckner, first deputy United States marshal, and Benjamin Harris, federal meat inspector, at the storage plant of Beckstein & Co., Forty-fifth street and Packers avenue.

The seizure followed complaints from residents near the warehouse that a consignment of meats on the shipping platform was giving forth a disagreeable odor. Investigation revealed an undelivered consignment of eight casks of hog casings, aggregating 2,500 pounds, standing on the platform.

The government authorities immediately seized the eight casks and James Fischer, watchman at the place, was served with the government papers appointing him caretaker of the seized goods. According to government officials the hog casings were decayed and unfit for food purposes.

SEIZE CHICKENS AND CHAMPAGNE.

The Federal government seized 32,600 pounds of cold storage chicken and sixty-six bottles of imitation champagne August 14. Libels ordering the seizure were filed by Assistant District Attorney L. W. Price in the United States District Court.

The seizure of the poultry which had been traced by the government from Kansas City to Philadelphia and back to Chicago, was made by Deputy Marshal Coy at a siding on the Pennsylvania Railroad Company's tracks at West Fifteenth street. The shipment consisted of a carload, containing eighty-eight barrels.

Twelve chickens taken as samples by Pure Food Inspectors J. R. Garner and Robert Young showed the poultry to be in the last stages of decomposition, although packed in ice and frozen solid. The government believes it is more than a year since the fowls were killed.

In their report the inspectors said:

"Ninety-five per cent of the chickens are diseased and unfit for food. They are filthy and decomposed."

The shipment was made more than a week previous from Kansas City to the Aaron Poultry and Egg Company of Philadelphia. The government contends the consignees knew the food inspectors were on the trail and the concern refused to accept the shipment, reshipping it to Chicago.

When the shipment arrived in Chicago its condition was so bad that the Chicago Cold Storage Warehouse refused to accept it and the car was shunted to a siding.

The seizure of the imitation champagne was made by Deputy Marshal W. H. Griffith at the saloon of Marco Bros., 3228 Lincoln avenue. Misbranding with intent to deceive and adulteration is charged in the libel. The bottles were labeled "Champion—Extra Dry, guaranteed to meet the requirements of the pure food law." The government contends the word "Champion" is used to deceive purchasers into believing they are buying champagne. The bottles were labeled, tin foiled, and corked to represent the real article.

The Nectar Company of New York made the shipment. Food Inspector Garner sampled the product and found the bottles contained ordinary California wine, artificially carbonated. Attorney Price asked that the court order the chicken and "champagne" confiscated and destroyed.

REAL RIPE EGGS.

The state board of health of New Jersey has had under consideration the proposition of releasing 400 cases of frozen eggs, seized by the federal government three years ago. At a hearing of the case Prof. W. G. Sedgwick of Stevens Institute of Technology appeared as an expert witness, and furnished surprising testimony by declaring that the three-year-old eggs were still perfectly wholesome. As evidence he told of feeding them to members of his family, who suffered no ill effects. He pointed out the custom of the Chinese, who preserve eggs for indefinite periods, and recalled that when Li Hung Chang visited America he brought with him eggs "100 years old," because there were no eggs in this country old enough to suit him.

The eggs in question were shipped East by a Kansas firm in 1910, and were seized by the government as unfit for food. The District Court held that the government had failed to prove that the eggs were bad. The Circuit Court of Appeals reversed the judgment, and this in turn was set aside on the ground that it was without jurisdiction. All that now stands between the eggs and the public is the want of an order of the state board of health releasing them from storage.

CONVENTION OF PHARMACISTS.

The sixty-first annual convention of the American Pharmaceutical Association will assemble at Nashville, Tenn., August 18.

Two new features of the association's work this year will be the proceedings of the House of Delegates and of the newly established Women's Section.

The House of Delegates is intended to act mainly as an advisory body to the association.

The Women's Section was created primarily for the purpose of affording professional representation to the increasing number of women who are entering pharmaceutical pursuits. The correspondence of the president and secretary of that section shows that women pharmacists of the country are greatly interested, and that the attendance upon its sessions and the papers which will be presented to it will be even greater than was anticipated by those who were active in the creation of the section.

All the other section officers have been active, and report promises of a large list of papers.

J. H. Beal, General Secretary.

BATAVIA FACTORY BURNED.

The factories of the Batavia Preserving Company at Batavia, N. Y., was burned to the ground recently. After the fire got started nothing that the fire department could do



appeared to have any effect on the fire. The loss is estimated at $125,000. A remarkable picture of the fire printed herewith was taken for Leslie's Weekly shortly after the fire broke out.

FEED CANDY TO HOGS.

On August 6 the refuge wagon carted to the farm, for their delectation, nearly 1,500 pounds of milk chocolates, 3,000 pounds of peanuts, 850 pounds of shelled cocoanuts, 15 barrels of sugar and about 20 barrels of other odds and ends used in making candy. It represented some of the condemnations made at several candy factories by the food inspection division of the Health Department. It was offered to the pigs at the Refuge Home by Dr. Otto P Geier, superintendent of the department of charities and corrections. It was pointed out that 1⅛ pound of chocolate is equal in fattening qualities to a bushel of wheat.

MELVIN SAILS FOR BRAZIL.

A. D. Melvin, Chief of the Bureau of Animal Industry in the Department of Agriculture in Washington, has sailed for Rio Janeiro. He is going on a tour of inspection of the cattle ranches, slaughter houses and packing plants of Brazil, the Argentine, Uruguay and Paraguay.

When the Underwood tariff goes into effect a great increase in the beef trade from South America is expected and Mr. Melvin is on his way to South America to see that the American laws are complied with before the beef is shipped.

Health Officer Dr. A. L. Smedley, of Hamilton, O., poured carbolic acid on 100 bushels of beans which had been reserved for packing by the Jersey Packing Co., a branch of the Snider Preserve Co., of Cincinnati. The plant had been inspected by Mrs. Ida Von Kanel, and she took samples to Dr. Smedley, who found, upon examination, that they were unfit for food purposes. After pouring the acid on the beans he proceeded to dump the product in the Miami river. The 100 bushels of beans would have made 36,000 cans.

The Massachusetts State Board of Health is making final preparations for enforcing rigidly the new law requiring all cold storage eggs to be plainly marked as such wherever they are displayed for sale. The dealers are not pleased with this statute, feeling that it may tend to make many customers refrain from buying eggs shown under such signs, but there is nothing for them to do except obey the rule.

Dr. Frank L. Morse and G. O. Wilhite have perfected a cure for poison by bichloride of mercury. Results are accomplished through the application of an electric and chemical bath. This drives the mercury from the stomach through the flesh to find harmless chemical absorption.

Marion came to the breakfast table late, and was scanned by the reproachful eyes of her mother.

"Did that young man kiss you last night, Marion?"

"Now, mother," said the very pretty girl, with a reminiscent smile, "do you suppose he came all the way from Blue Rock to hear me sing?"—*Lippincott's.*

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OF FOOD CONTROL OFFICIALS

NATIONAL OFFICIALS.

Department of Agriculture, Washington, D. C.
David Franklin Houston, Secretary.
B. T. Galloway, Assistant Secretary.
A. D. Melvin, Chief Bureau of Animal Industry.
Carl Lucas Alsberg, Chief Bureau of Chemistry.
W. G. Campbell, Chief Food and Drug Inspector.
G. E. Patrick, Chief Dairy Laboratory.
Dr. L. F. Kebler, Chief of Drugs Laboratory.
J. K. Haywood, Chief of Miscellaneous Division.
L. M. Tolman, Chief of Washington Food Inspection Laboratory.
A. L. Sullivan, Chief of Boston Laboratory.
W. L. Dubois, Chief of Buffalo Laboratory.
A. L. Winton, Chief of Chicago Laboratory.
B. R. Hart, Chief of Cincinnati Laboratory.
R. F. Hiltner, Chief of Denver Laboratory.
H. L. Schulz, Chief of Detroit Laboratory.
F. W. Liebsner, Chief of Kansas City Laboratory.
C. W. Harrison, Chief of New Orleans Laboratory.
R. E. Doolittle, Chief of New York Laboratory.
S. H. Ross, Chief of Omaha Laboratory.
C. F. Brinton, Chief of Philadelphia Laboratory.
M. C. Albrech, Chief of Pittsburgh Laboratory.
E. L. Lyman, Chief of Portland Laboratory.
H. M. Loomis, Chief of San Francisco Laboratory.
W. C. Burnett, Chief of Savannah Laboratory.
R. W. Hilts, Chief of Seattle Laboratory.
A. W. Hamsen, Honolulu, H. I.
A. E. Taylor, Chief of Porto Rico Laboratory.

BUREAU OF ANIMAL INDUSTRY.

A. D. Melvin, Chief of Bureau.
R. P. Steddom, Chief of Inspection Division.
B. H. Rawl, Chief of Dairy Division.
M. Dorset, Chief of Division of Biochemistry.

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Saccharin does not abstract from the food value of other food, it only adds a flavor to it. Sugar replaces a certain quantity of other food, and if what it replaces is of higher food value than sugar, as most things we eat are, the sugar abstracts from the food value. This is a fact—as paradoxical as it may seem.

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According to F. I. D., 146, Saccharin must not be used in any food even if the consumer is told by his doctor that he must eat Saccharin-sweetened food. Why ? A declaration on the labels of foods stating plainly when Saccharin has been used would eliminate any possible deception of the consumer.

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Food Market Review

FOOD prices have been so high that people would be badly frightened if there was any prospect of their going still higher. Everyone has been looking for lower prices on the theory that everything was high owing to abnormal conditions. The fact is that foodstuffs for the most part have advanced in price steadily as the result of natural causes. Some products are down while others are up. Generally there is little change to note in food values.

TEA.

We are going to have better tea from China and Japan. That much is settled. The federal government has taken a firm stand against colored teas, and has notified the foreigners that the methods of other days will no longer be tolerated so far as this country is concerned. Last year there was a good deal of trouble over colored tea from China. Somehow the tea men could not break away completely from the coloring methods of their ancestors. They did not use as much coloring as heretofore, but there was enough on their teas to have barred their product from this country under a strict interpretation of the law. It was deemed wise, however, to let in the slightly colored teas and educate the importers up to a strict observance of the law for this year. The powers in China have been notified what kind of treatment their colored teas would get this year from Uncle Sam, and the powers that be in turn notified the growers, with the result that tea drinkers may expect to be able to buy pure, uncolored tea this year.

The price of tea is likely to be higher than last year. It is higher now and the probability is that the general tone of the market will continue firm, more especially with reference to Ceylon and India teas. The China and Japan teas will be of better quality than they were last year.

COFFEE.

The coffee market has been on the downward grade for months. The present indications are that a little higher range will be recorded for the popular varieties like the Brazilian coffees. The higher price coffees did not move up when the advance in Brazilian coffees was on. That is they were comparatively cheaper. Since the fall in prices of cheaper grades the fancy varieties have not been seriously affected in price. The one thing that tends to keep the coffee market unsettled is the uncertainty regarding the government's attitude toward the valorization plans of the Brazilians. More than three-quarters of our coffee comes from Brazil, and if the coffee dealers of that place, working in conjunction with American and other capitalists are to be allowed to fix the price of coffee, and fix it high by another valorization scheme, the consumer will be obliged to take the consequence and object without getting relief. Of the 8,000,000 bags of coffee held originally by the valorizationists but 3,000,000 bags are left. None of this coffee is in this country, but it has its influence on the market. It will not take long for this coffee to disappear. Then the natural law of supply and demand will govern the market, and most likely lower prices will prevail. But the spectre of another valorization plan looms up in the distance to disturb the market of today and tomorrow.

CEREALS.

The excellent crop of wheat would indicate that we are to have cheaper flour for a long period. Oats has been a good crop in sections, but corn throughout the big corn belt has suffered from the long spell of warm weather of July and August. The crop promises to fall far below that of last year. A good hay crop harvested, which will help out the corn shortage.

MEATS.

All kinds of meat have been scarce and high. We may not hope for cheaper meats because of the scarcity of corn, out of which meat is largely made. But when we get into another season we are likely to find meat still high enough to be classed as a luxury. Eventually meat will look cheap at present prices. Land values have increased so much that we can no longer raise cheap beef, pork or mutton. The big ranges of the west are things of the past, and without cheap land on which to graze cattle, cheap meat is out of the question. Moreover, farmers are not raising their calves as much as they did, particularly the dairy farmer. He wants the milk and destroys the calf to get it. We are coming more and more to a level of the European countries, which with their high priced farm land cannot profitably raise stock for meat purposes. We may have cheaper meat for a time but the general tendency of all our meat products is bound to be upward. It is a comparatively simple problem. Our population has increased nearly 16,000,000 in the last decade while the production of beef has decreased.

CANNED FOODS.

Last year there was a very large pack of canned foods. This year the quality of stuff that will go into cans is doubtful. Peas have been a disappointment. There will be a shortage in both the fancy and ordinary grades. Tomatoes is the big canned foods crop. Last year there was a big pack, and this has been pretty well cleaned up. This year the probability is that the pack will be smaller and in fact will not be large enough to go around. Hence we may look for higher prices. In fact the general average of prices on canned goods this year is likely to be higher than those of last year.

SALT FISH.

Since the advance in meat products began several years ago, the people of the middle west have turned toward fish. Meat prices have soared so high that people have been forced to look for a substitute, and the nearest thing to meat they can find is fish. Of course the people who live on the Atlantic coast have always been accustomed to fish, but our prairie folk have ever been meat eaters—until the price got so high they could no longer stand it. Hence the increased demand for salt fish of every variety. Mackerel, one of the staples, is not good at this season. They are poor and will be so for some time to come. Then they will fatten and we shall have good fish of this popular variety. The outlook for the coming year in salt and canned fish is good, but the demand is so strong that we are likely to see higher prices. At all events it is not at all likely that the better grades of salt fish, sardines and other fish products in cans will be as low as they were last year.

VALUE OF SUGAR.

The late Sir Henry Thompson, a recognized authority on diet, wrote: "It is scarcely sufficiently known that sugar is a very valuable food where much muscular exercise is taken, and much bodily labor performed. Especially in adults who are becoming exhausted with labor, sugar may be taken largely, with the effect of rapidly affording a fresh supply of power." By far the best sugar in the world is grape-sugar. That is the kind which nourishes and sustains the body; is easily digested, and in every way beneficial. This invaluable substance is found in the currant. In fact, currants are nearly all grape-sugar, and that is why they are so good for the health. Those who lead an open-air life should make a point of eating plenty of currants. Whether raw or cooked is immaterial, but, as Sir Henry Thompson unmistakably indicated, sugar is a provider of power, and should be used by all in need of nourishment. Common sense dictates the use of the best and most palatable form of sugar, which is undoubtedly the currant. The Christmas pudding, mince pie, Eccles cake, and many other delicacies owe their perfect flavor to the presence of currants. There is no better food in the world than the aforesaid luxuries, or any other preparation in which the currant appears.

Baltimore, Md., August 2, 1913.

The American Food Journal,
15 S. Market St., Chicago, Ill.

Gentlemen: Enclosed I am sending one dollar, for which please send me five copies of your journal for July, 1913. I want these copies for distribution among our laboratory force, as I am desirous of having them all read the proceedings of the recent Mobile meeting, especially the very many interesting papers. Thanking you in advance for prompt attention,

Very truly yours,

CHAS. CASPARI, JR.,
Maryland State Food and Drug Commissioner.

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Important Supreme Court Decision

"THE question propounded is 'Did the acts of the appellee in retailing at less than the price fixed in said notice, original packages of Sanatogen purchased of jobbers as aforesaid, constitute infringement of appellants' patent?'

"The protection given to inventors and authors in the United States originated in the Constitution, section 8 of Article 1 of which authorizes the Congress 'to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.' This protection, so far as inventors are concerned, has been conferred by an act of Congress passed April 10, 1790, and subsequent acts and amendments. The act of 1790 (I Stat. 109) granted 'the sole and exclusive right and liberty of making, construucting, using and vending to others to be used, the said invention or discovery.' In 1793 (I Stat. 318) the word 'full' was substituted for the word 'sole' and in 1836 (5 Stat. 117, Sec. 5) the word 'constructing' was omitted. This legislation culminated in Section 4884 of the Revised Statutes, the part with which we are dealing being practically identical with the act of 1870 (16 Stat. 198, Sec. 22). It provides that every patent shall contain 'a grant to the patentee, his heirs and assigns for the term of seventeen years, of the exclusive right to make, use, and vend the invention or discovery.'

WHAT THE ACT REALLY ASSURED.

"The right to make, use and sell an invented article is not derived from the patent law. This right existed before and without the passage of the law and was always the right of the inventor. The act secured to the inventor the *exclusive* right to make, use, and vend the thing patented, and consequently to prevent others from exercising like privileges without the consent of the patentee. Bloomer vs. McQuewan, 14 How. 539, 549; Continental Paper Bag Co. vs. Eastern Bag Co., 210 U. S. 405, 425. It was passed for the purpose of encouraging useful invention and promoting new and useful improvements by the protection and stimulation thereby given to inventive genius, and was intended to secure to the public, after the lapse of the exclusive privileges granted, the benefit of such inventions and improvements. With these beneficent purposes in view the act of Congress should be fairly or even liberally construed. Yet, while this prinple is generally recognized, care should be taken not to extend by judicial construction the rights and privileges which it was the purpose of Congress to bestow.

"In framing the act and defining the extent of the rights and privileges secured to a patentee, Congress did not use technical or occult phrases, but in simple terms gave an inventor the exclusive right to make, use and vend his invention for a definite term of years. The right to make can scarcely be made plainer by definition, and embraces the construction of the thing invented. The right to use is a comprehensive term and embraces within its meaning the right to put into service any given invention. And Congress did not stop with the express grant of the rights to make and to use. Recognizing that many inventions would be valuable to the inventor because of the sales of the patented machine or device to others, it granted also the exclusive right to vend the invention covered by the letters patent. To vend is also a term readily understood and of no doubtful import. Its use in the statute secured to the inventor the exclusive right to transfer the title for a consideration to others. In the exclusive rights to make, use and vend, fairly construed, with a view to making the purpose of Congress effectual, resides the extent of the patent monopoly under the statutes of the United States. Bloomer vs. McQuewan, supra, 549. We need not now stop to consider the rights to sell and convey, and to license others to sell or use inventions, which rights have been the subject of consideration in the numerous reported cases to be found in the books. We are here concerned with the construction of the statute in the aspect and under the facts now presented.

THE REAL QUESTION BEFORE THE COURT.

"The case presented pertains to goods purchased by jobbers within the District of Columbia and sold to the appellee at prices not stated, and resold by him at retail at less than the price of one dollar fixed in the notice. The question, therefore, now before this court for judicial determination is: May a patentee by a notice limit the price at which future retail sales of the patented article may be made, such article being in the hands of a retailer by purchase from a jobber who has paid to the agent of the patentee the full price asked for the article sold?

"The object of the notice is said to be to effectually maintain prices and to prevent ruinous competition by the cutting of prices in sales of the patented article. That such purpose could not be accomplished by agreements concerning articles not protected by the patent monopoly was settled by this court in the case of Dr. Miles Medical Co. vs. Park & Sons Company, 220 U. S. 373, in which it was held that an attempt to thus fix the price of an article of general use would be against public policy and void. It was doubtless within the power of Congress to confer such right of restriction upon a patentee. Has it done so? The question has not been determined in any previous case in this court, so far as we are aware. It was dealt with under the copyright statute, however, in the case of Bobbs-Merrill Co. vs. Straus, 210 U. S. 339. In that case it was undertaken to limit the price of copyrighted books for sale at retail by a notice on each book fixing the price at one dollar and stating that no dealer was licensed to sell it for less and that a sale at a less price would be treated as an infringement of the copyright. It was there held that the statute, in securing to the holder of the copyright the sole right to vend copies of the book, conferred a privilege which, when the book was sold, was exercised by the holder, and that the right secured by the statute was thereby exhausted. The court also held that it was not the purpose of the law to grant the further right to qualify the title of future purchasers by means of the printed notice affixed to the book, and that to give such right would extend the statute beyond its fair meaning and secure privileges not intended to be covered by the act of Congress. In that case it was recognized that there are differences between the copyright statute and the patent statute, and the purpose to decide the question now before us was expressly disclaimed.

"Section 4952, Revised Statutes, a part of the copyright act, secures to an author, inventor, designer or proprietor of books, maps, charts or dramatic or musical compositions the sole liberty of printing, reprinting, publishing, completing, copying, executing, finishing and vending them. While the statute differs from the patent statute in terms and in the subject matter intended to be protected, it is apparent that in the respect involved in the present inquiry there is a strong similarity between and identity of purpose in the two statutes.

ANALYSIS OF PATENT RIGHTS.

"In the case of patents the exclusive right to vend the invention or discovery is added to the right to make and use the subject matter of the grant, and in the case of copyrights the sole right of multiplying and reproducing books and other compositions is coupled with the similar right of 'vending the same.' So far as the use of the terms 'vend' and 'vending' is concerned, the protection intended to be secured is substantially identical. The sale of a patented article is not essentially different from the sale of a book. In each case to vend is to part with the thing for a consideration. It is insisted that the purpose to be subserved by notices such as are now under consideration—keeping up prices and preventing competition—is more essential to the protection of patented inventions than of copyrighted articles; and it is said that the copyrighted article may be and usually is sold for a lump consideration by the author or composer and that he has no interest in the subsequent sales of the work, while patented inventions require large outlays to create and maintain a market.

"To some extent this contention may be based upon fact, nevertheless it is well known that in many instances the compensation an author receives is the royalties upon sale of his book or a percentage of profits, which makes it desirable that he shall have the protection of devices intended to keep up the market and prevent the cutting of prices. But these considerations could have had little weight in framing the acts. In providing for grants of exclusive rights and privileges to inventors and authors we think Congress had no intention to use the term 'vend' in one sense in the patent act and 'vending' in another in the copyright law. Protection in the exclusive right to sell is aimed at in both instances, and the terms used in

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the statutes are to all intents the same.

PATENT AND COPYRIGHT LAWS COMPARED.

"It is apparent that the principal difference in the enactments lies in the presence of the word 'use' in the patent statute and its absence in the copyright law. An inventor has not only the exclusive right to make and vend his invention or discovery, but he has the like right to use it, and when a case comes fairly within the grant of the right to use, that use should be protected by all means properly within the scope of the statute. In Bement vs. National Harrow Co., 186 U. S. 70, the owner of a patent granted a license to the defendant to manufacture and sell harrows embodied in the invention covered by the patent. The license provided for the payment to the licensor by the licensee of a royalty of one dollar for each harrow or frame sold and stipulated that the licensee was not to sell to any person for a less price than that named and that the license was subject to change from time to time. The case was one arising upon license agreements originating in a state court, and did not involve the construction of the patent act in the circumstances now disclosed.

IMPORTANCE OF DICK-HENRY CASE.

"Chief reliance, however, of the plaintiff in this case is upon the recent decision of this court in Henry vs. Dick Co., 224 U. S. 1. An examination of the opinion in that case shows that the restriction was sustained because of the right to use the machine granted in the present statute, distinguishing in that respect the patent from the copyright act. In that case a patented mimeograph had been sold which bore an inscription in the form of a notice that the machine was sold with the license restriction that it might only be used with stencil, ink and other supplies made by the A. B. Dick Company, the owners of the patent. The alleged infringer sold to the purchaser of the mimeograph a can of ink suitable for use with the machine with full knowledge of the restriction and with the expectation that the ink sold would be used in connection with the machine. It is expressly stated in the opinion that the machine was sold at cost or less and that the patentee depended upon the profit realized from the sale of non-patented articles to be used with the machine for the profit which he expected to realize from his invention (224 U. S. 26). After commenting upon the copyright statutes and the resemblance between the author's right to vend copies of his work and the patentee's right to vend the patented thing, it was said (p. 46):

" 'To the inventor, by § 4884, Revised Statutes, there is granted the exclusive right to make, use and vend the invention or discovery. This grant, as defined in Bloomer vs. McQuewan, 14 How. 539, 549, consists altogether in the right to exclude everyone from making, using or vending the thing patented. Thus there are several substantive rights, and each is the subject of subdivision, so that one person may be permitted to make, but neither to sell nor use the patented thing. To another may be conveyed the right to sell, but within a limited area, for a particular use, while to another the patentee may grant only the right to make and use, or to use only for specific purposes. Adams vs. Burke, 17 Wall 453; Mitchell vs. Hawley, 16 Wall 544; Rubber Co. vs. Goodyear, 9 Wall 788, 799.'

"That case was distinguished from Bobbs-Merrill vs. Straus, supra, construing the copyright act, because of the difference in the terms of the copyright and patent statutes, the patent act conferring not only the right to make and sell, but the exclusive right to use the subject matter of the patent. It was under the right to use that the license notice in question was sustained, and it is obvious that the notice in that case dealt with the use of the machine and limited it to use only with the paper, ink and supplies of the manufacture of the patentee. While the title was transferred, it was a qualified title, giving a right to use the machine only with certain specified supplies. It was said in the Dick case that 'there is no collision whatever between the decision in the Bobbs-Merrill case and the present opinion. Each rests upon a construction of the applicable statute, and the special facts of the cases.'

DISCUSSION OF TERMS OF LICENSE.

"It is contended in argument that the notice of this case deals with the use of the invention, because the notice states that the package is licensed 'for sale and use at a price not less than one dollar,' that a purchase is an acceptance of the conditions, and that all rights revert to the patentee in event of violation of the restriction. But in view of the facts certified in this case, as to what took place concerning the article in question, it is a perversion of terms to call the transaction in any sense a license to use the invention. The jobber from whom the appellee purchased had previously bought, at a price which must be deemed to have been satisfactory, the packages of Sanatogen afterwards sold to the appellee. The patentee had no interest in the proceeds of the subsequent sales, no right to any royalty thereon or to participation in the profits thereof. The packages were sold with as full and complete title as any article could have when sold in the open market, excepting only the attempt to limit the sale or use when sold for not less than one dollar. In other words, the title transferred was full and complete with an attempt to reserve the right to fix the price at which subsequent sales could be made. There is no showing of a qualified sale for less than value for limited use with other articles only, as was shown in the Dick case. There was no transfer of a limited right to use this invention, and to call the sale a license to use is a mere play upon words.

REAL QUESTION STATED.

"The real question is whether in the exclusive right secured by statute to 'vend' a patented article, there is included the right, by notice, to dictate the price at which subsequent sales may be made. The patentee relies solely upon the notice quoted to control future prices in the resale by a purchaser of an article said to be of great utility and highly desirable for general use. The appellee and the jobbers from whom he purchased were neither the agents nor the licensees of the patentee. They had the title to, and the right to sell, the article purchased without accounting for the proceeds to the patentee and without making any further payment than had already been made in the purchase from the agent of the patentee. Upon such facts as are now presented we think the right to *vend* secured in the patent statute is not distinguishable from the right of *vending* given in the copyright act. In both instances it was the intention of Congress to secure an exclusive right to sell, and there is no grant of a privilege to keep up prices and prevent competition by notices restricting the price at which the article may be resold. The right to vend conferred by the patent law has been exercised, and the added restriction is beyond the protection and purpose of the act. This being so, the case is brought within that line of cases in which this court from the beginning has held that a patentee who has parted with a patented machine by passing title to a purchaser has placed the article beyond the limits of the monopoly secured by the patent act.

"In Adams vs. Burke, 17 Wall, 453, Mr. Justice Miller, delivering the opinion of the court, pertinently said (p. 455):

" 'The vast pecuniary results involved in such cases, as well as the public interest, admonish us to proceed with care, and to decide in each case no more than what is directly in issue.

" 'The true ground on which these decisions rest is that the sale by a person who has the full right to make, sell, and use such a machine carries with it the right to the use of that machine to the full extent to which it can be used in point of time.

" 'The right to manufacture, the right to sell, and the right to use are each substantive rights, and may be granted or conferred separately by the patentee.

" 'But, in the essential nature of things, when the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use. The article, in the language of the court, passes without the limit of the monopoly. That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees.'

"Bloomer vs. McQuewan, supra; Goodyear vs. Beverly Rubber Co., 1 Cliff. 348, 354, 10 Fed. Cases 638; Chaffee vs. Boston Belting Co., 22 How. 217, 223; Keeler vs. Standard Folding Bed Co., 157 U. S. 659.

"Holding these views, the question propounded by the Court of Appeals will be answered in the negative and it is so ordered."

The minority members of the court who dissented were Justices McKenna, Holmes, Lurton and Van Devanter. They did not present a dissenting opinion but joined in the statement that they dissented.



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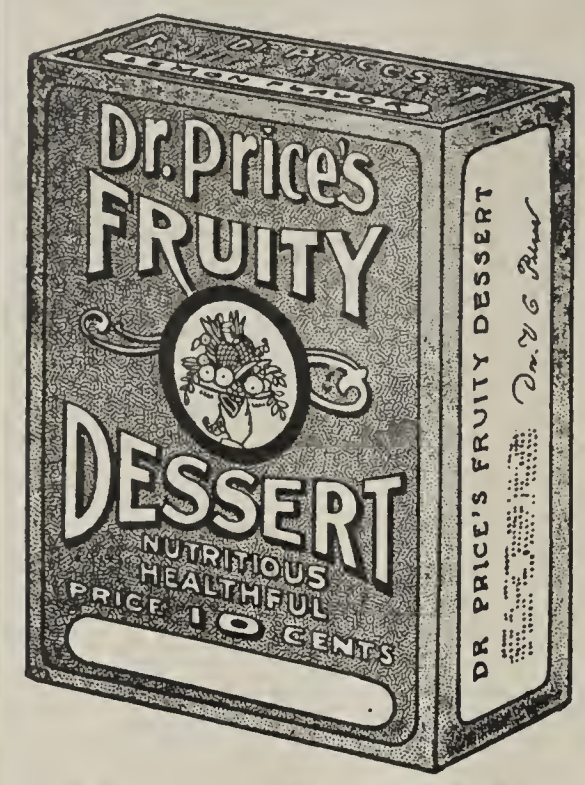
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The ownership of The American Food Journal is vested solely in the officers of the company. No person, firm or corporation, either directly or indirectly connected with the business it represents, has any share in its ownership or voice in shaping its policy which has in view at all times the best interests of the field it serves. It aims to discuss all subjects fairly, and to furnish its readers information concerning the progress and development of the food industries. It will answer any questions coucerr ing the business to the best of its ability, and it asks its readers in all parts of the world to aid it with inquiries and suggestions, to which it will give prompt and earnest consideration.

VOLUME VIII. SEPTEMBER, 1913. NUMBER 9.

Getting Out of the Pure Food Field

OVERZEALOUS food commissioners who would add to their legitimate function that of regulating purely commercial affairs, belong to a small group of officials whose existence the law or the lawmakers never contemplate.

These men, not content to hunt down dealers in unwholesome food, must needs go beyond the law and the rules of common sense and take a hand in the purely business part of food distribution. If permitted to pursue the bent of their inclination they would take a dip into the general affairs of state. If the laws on the statute books did not suit their purpose they would make rulings and stretch these to fit all manner of cases.

We believe in pure food. We believe in upright, zealous food commissioners, but we do not believe these food commissioners should show disrespect for the law as laid down by the supreme court, nor do we believe they should reach out into the world of business beyond their legitimate field of pure food.

A striking example of the work to which we refer is found in the recent passage of the anti-corn syrup law, pushed through the legislature of Wisconsin by Commissioner J. Q. Emery.

This law is such a direct slap at the recent ruling of the Supreme Court that it stands out as a contempt. The food commissioner evidently did not like the ruling in favor of the corn syrup label by the United States Supreme Court, and he sulked until he could hatch out a new law calculated to defeat the ruling of the Supreme Court, the federal board of secretaries and other federal authorities. Commissioner Emery would have the state of Wisconsin practically secede from the Union and make such ridiculous food laws as would tend to keep "foreign" manufacturers out of the state.

The recent Wisconsin law does not differ essentially from the old law of Wisconsin, which the Supreme Court decision knocked out. There may be a slight difference between these laws, but it would take an expert to find it. The old law had for its purpose the compelling of the use of the word glucose instead of corn syrup. The court has ruled that corn syrup is a proper term. The board of secretaries at Washington ruled the same way. And it is highly probable that when the higher authorities are again called upon to rule on this same question raised under the new law it will only be necessary for them to reread the corn syrup decisions already of record.

It is a wonder that after the recent Supreme Court ruling Commissioner Emery did not take the law as it was handed to him from the highest tribunal in the country, and give it force in good faith. That would have been the right thing to do. If he thought the great Supreme Court of the United States and the federal board of secretaries were wrong in their rulings, he should nevertheless have bowed to their decrees.

It is bad for any one to defy the highest law in the land, or in any way seek to defeat it. The last set of persons in the land to do this should be public officials.

Commissioner Emery knows, and so do all well informed people know, that there is only one question involved in this whole corn syrup controversy. And that is a commercial rather than a pure food question.

All food authorities agree that the product known as corn syrup is a healthful product. It is a cheap syrup and as such has an important place in our political economy. It would not taste any different or be any different in fact if it was called glucose. No good purpose would be served the business world or the consuming world if Commissioner Emery could have the product labeled glucose.

But it would do some harm because glucose under that name has been so badly abused for many years that the term has become opprobrious. That is all there is to this controversy. The manufacturers have seen fit to select a better name, a more descriptive name for the good of their product and the good of their business and the people who want a cheap, healthful syrup.

The name corn syrup indicates that the product is from corn as distinguished from sugar cane. The name tells the truth, whereas glucose gives no idea to the lay mind as to the source of such a product.

If glucose or corn syrup were a product of doubtful character, or if the name corn syrup was calculated to deceive, then men of the Commissioner Emery type might be justified in their objections. But since this is not so the only reasons for the objections are those that come from hyper-critical people who like to do things to attract attention to themselves. Or once having got a wrong notion into their heads persist in keeping it there regardless of even the opinion of the highest authority in the land.

The new Wisconsin law is essentially the same as the old law. No doubt the court will tell Commissioner Emery so in terms he will not fail to understand.

OUR FOOD SUPPLY.

EVER since the crop experts have determined that we are to have a very short corn crop, the speculative philosophers have been figuring to ascertain if possible how great a food famine we are to have for a year to come.

Corn for cornmeal and other corn products, corn for whisky, and corn for a variety of manufacturing purposes will take so much corn from the farm that there will be little left for the hogs and cattle. Hence the speculative philosophers have it that we will be short of meat and short of all manner of corn products, which means that everything that is made out of corn will be high. Indeed it has already been determined by the wise men that we are to have dollar corn and dollar wheat—a very desirable condition for the farmer with a good crop to contemplate and not bad for the farmer with a short crop.

In any event, the consumer of corn products is expected to pay a big price for all he may eat that owes its existence to corn, and sympathetically the wheat and oats and rye products will be affected.

It is indeed a gloomy outlook for those of us who desire to eat well for the year to come. Gloomy if the speculative philosophers are nearly right in their prognostications.

However, it won't be so bad as it figures, because we have a corn shortage in places and big wheat yields everywhere. Oats and hay will help out the corn. And perhaps a little touch of corn famine will do the country good. It will have a tendency to awaken the people to the need of greater economy in the handling of our food products. And further it will show us the need of a better cultivation of our sources of food supply.

Our meat supply is steadily being reduced, and this with little regard to the size of our grain and forage crops. Consumption is outrunning production. We are becoming more and more a manufacturing people, and need for home use a great part of the food product we have been in the habit of sending abroad. It can no longer be said of us in truth that we feed the world. We must soon go abroad for our meat supply, and as for our farm crops generally we will soon need all we can raise to feed our own people. And unless we learn the lesson of economy better than we appear to understand it now, we will not get enough food from our farms in a few years to take good care of our own people.

We are possibly the most wasteful nation in the world. The waste begins on the farm and goes all the way to the consumer. Food stuff has been so cheap in the past that the consumer has not felt the need of making his foodstuff go as far as might be done. But the higher prices of today are making the people think about economy even if some do not practice it. The habit of waste is upon us, and it will take some time for us to shake it off.

Meanwhile prices of foodstuff will tend to a still higher level and force a practice in economy upon the consuming public.

For another thing we must produce more from a given area of land. We are getting better crops today as a result of better farming methods, and no doubt this increase in production will continue as a result of still better farming methods.

Besides our land we have the big sea to draw upon for our food supply. Better laws for the propagation and conservation of fish are needed. This will come when the demand for fish has been sufficiently increased to warrant more attention to the improvement of our sea food supply.

Then we have any number of inland lakes and rivers, now yielding a big supply of food, not, however, such a food supply as they might yield under a proper national system of conservation.

In short we must improve our food supply by compelling a better yield and make it go further by the practice of a greater degree of economy.

PROMOTING AN OYSTER APPETITE.

UNDER the direction of the Oyster Growers and Dealers Association of North America we are to have an oyster week, beginning October 20. During this period special effort will be made to make the virtue of the oyster known. Incidentally the oyster experts will strive to remove what prejudice has grown up against the oyster as a food product within recent years.

It is highly commendable that the oyster men themselves shall be at some pains and expense to advise the oyster eating public respecting the objections that have been urged against the oyster as a food product, because in the first instance whatever of odium attaches to the oyster has come about through the carelessness or neglect of the oyster men themselves. That is, a number of them have been very careless in the gathering and shipping of their product. Besides we have been fed on nice looking, plump, tasteless oysters that have simply been swelled up with water.

Now that the oyster men themselves are working against all the old evils of oyster gathering and handling we may expect them through their organized effort to reinstate the oyster to its status of other days.

The federal department has given much attention to the cultivation and shipment of oysters during the past year, which has done much to reassure the people respecting the quality of oysters that will be put upon the market this season.

It is getting to be the fashion to specialize for a period on publicity work. Or in other words organized commercial bodies are learning the value of publicity. Not long ago we had a canned foods week, during which period grocers all over the country made special canned foods displays. This in addition to an advertising campaign carried on through the pa-

pers devoted to food products. The association found their expenditure of money and effort increased the demand for all kinds of canned foods. The oyster men through the special efforts made during oyster week will no doubt do much to increase the interest in oysters as a healthful and delicious food product.

AGAINST COFFEE VALORIZATION.

WHETHER or not Brazil is to be permitted to put through another valorization coffee scheme depends somewhat on the temper of the American people, who are still smarting under the artificial prices that ruled as the result of the valorization scheme now about at an end.

With only about 3,000,000 bags of valorized coffee left the market has responded to the rule of supply and demand, with the result that the high prices that prevailed under manipulation have receded until coffee is now selling at something like its fair value.

The Brazilians and coffee speculators of the country desire to start another valorization scheme so as to put prices up at the expense of the consuming public. They made a lot of money out of valorization and it appears to these same speculators that the plan will work again. There is no question about the ability of the speculator to raise the money to carry the coffee they would take out of circulation, and these men are assured that they might depend upon the government of Brazil to restrict production if necessary. In fact, there is nothing to hinder another coffee valorization with high prices except the temper of the American people and the influence they might exert on their representatives at Washington.

There is a feeling among the coffee men of the country that the officers of President Wilson's cabinet are not in harmony on any plan to prevent valorization. The Secretary of State is thought to view the matter as a diplomatic question between two friendly governments. The attorney general is disposed to look at the question with a legal eye, and would no doubt be disposed to handle the valorization people as he would any other body of men who conspired in restraint of trade.

Senator Norris, who has been active against the valorizationists in the past, is still in the mood of moving against the coffee conspirators if they show any disposition to put through another scheme. But he gets little encouragement from the department of state. Secretary Bryan has listened attentively to what Senator Norris has had to say. But he does not indicate his feeling in the matter. In fact, no one appears to know the attitude of the state department on valorization.

It is quite certain, however, that the people will rise as high as they can in their democratic might should the valorizationists again attempt by artificial means to raise the price of coffee.

OUR SUPPLY OF BAD MILK.

WHILE presiding over the section devoted to children's diseases at the medical congress in London England, Dr. Harold Stiles of Edinburgh, Scotland, made the statement that at least ten per cent of the milk sold in the cities is tubercular, and therefore the cause of much infant mortality.

This statement has been put forth in similar language with respect to the children of Illinois, by competent physicians and others who have made a careful study of the milk question. Yet the authorities who might furnish relief from this very bad condition have not yet found a way to do so. In other states the live stock commissions, backed by a suitable law, have been able to do a great deal in the way of ridding the state of infected cattle. But Illinois not only refuses to act, but permits the cattle buyers to bring the condemned cattle of other states into their own state, already overcrowded with tubercular cattle.

That all dairy products are carriers of tuberculosis and other diseases has been well established after the most careful investigation.

What is sadly needed is a comprehensive plan by state and federal governments that will have for its purpose the ridding of the entire country of tubercular and other diseased cattle, that are primarily responsible for the death of thousands of children every year.

It has taken many years to build up the pure food organizations of state and federal governments. Looking backward we are hardly able to see how our ancestors managed to live without these institutions. Some time in the near future let us hope we can all look back to the time when we were fed tubercular milk and meat. To rid the country of diseased cattle is the one big problem of the food world. And it is not a very serious problem either. All that is necessary is to have state and federal live stock boards take hold of the matter in earnest, with the right kind of law back of them.

BETTER CATSUP ON THE MARKET.

SINCE the federal government took a decided stand against poor tomato catsup and made it known that the old style stuff made from cheap tomato pulp would be no longer tolerated, it is somewhat remarkable to note the great improvement in the catsup now being put on the market.

Whole, ripe, sound tomatoes are today an initial necessity. They cost a little more than the old style pulp, but they make a catsup worth a great deal more to the consumer. What the manufacturer may lose as a result of a higher first cost for material he is likely to make up in a less sales cost price, for the higher class goods are more readily sold than the old style stuff about which dealers and consumers had their doubts. Today people feel assured that the tomato catsup made by first class manufacturers is all that it should be.

The tomato catsup made under the new rule is a much handsomer product than that which manufacturers used to make from cheap pulp. It is a clear, handsome red, calculated to tempt the consumer.

For a time some of the manufacturers complained that the new rule of whole, ripe sound tomatoes would come pretty near to putting them out of business. But we hear none of that talk now. All the leading tomato catsup manufacturers appear to be satisfied with the new order of things and are making their tomato catsup according to law. Those who do not obey the law are being made to understand that they must conform to the law or go out of business.

Complimentary letters on our convention number have been sent to this office from every section of the country. These flattering recognitions of a service rendered our readers go a long way toward paying the cost of production.

Story of the Mackerel

Excellent Sea Food Upon Which Millions Breakfast Daily

By David Lane

FOR many years the mackerel has been recognized as the king of salt water fish. He is as staple as the codfish and is of a superior type. All over this country and in many parts of Europe this fish is served, both fresh and salt, every day of the year.

The habits and the characteristics of mackerel are interesting. There are three distinct kinds of mackerel. In Norway, the mackerel are found along the coast in great abundance during several months of the year. Owing to the great care taken by the people who produce these fish, they demand a better price and a foremost place on the markets of the world. During the hot summer months the fish that are produced by the Norwegians are rather poor in body and color. This is due to the fact that the fish have been practically starved during the earlier months of the year. However, they soon begin to show signs of fat and prosperity after the middle of August, and the September and October caught fish are considered the finest in the world.

Along the coast of Ireland, in the English channel, are produced large quantities of mackerel that are known commercially as Irish mackerel. These fish are nice eating, but seem to have a coarser flesh than the Norway mackerel. However, the flavor is excellent, and when these fish are properly cared for make a very wholesome meal. In Ireland these mackerel are brought in by the boats and then carted to the nearest shire towns and are sold at public auction to the highest bidder, he having an option on the entire quantity, whether there happens to be a thousand or several million fish. They are usually sold at so much apiece, and in the condition known as round; that is, they have not yet been split.

It is an interesting sight to stand on the beach at any of these principal fishing points in Ireland and see the village squire go through the town ringing a bell and calling the men, women, maidens and laddies to the shore for the purpose of splitting and curing the fish. Lengthy tables are arranged on the side and the workers, barefooted, with trousers rolled up as well as sleeves, and with a good sharp knife known as a "splitting knife," proceed to rim and split the mackerel. On a hot day it is next to a physical impossibility to hold the people at this work unless the foreman secures for them several barrels of porter. This is consumed among these hardy workers as freely as we in this country drink water.



The writer recalls a scene at a fishing town in Ireland. It happened to be a feast day and the town folks were not anxious to work at the mackerel. However, there were several hundred barrels of these that would have to be cured or else spoiled under the rays of the hot sun. The foreman in charge finally succeeded in getting part of the crowd to work, but they did not stay long before they demanded a keg of porter. Instead of getting one keg, they got three, and the result was that the mackerel were all split and put away nicely before sunset.

We Americans catch considerable quantities of mackerel along our eastern shores from the Carolinas northward to Newfoundland. A great many of these fish are marketed fresh, but considerable quantities are salted down and run in to the nearest markets and usually sold at good prices. It is true that our early caught mackerel are very thin and poor, being very large fish as a rule; but as the season advances the fish work their way up along the coast, following the gulf stream in a large measure, and during late in August and in September the mackerel that are cured are considered the finest that we produce in this country.

For some reason the American fishermen are not following the mackerel catching as they used to some years ago. Thirty or forty years ago they frequently would land as many as 80,000 or 100,000 barrels of salted mackerel, but during recent years the best catch is below 10,000 barrels. Last year the catch was about 3,500 barrels, and this year it looks as though it will be even less than that.

Along the shores of Prince Edward Island, Nova Scotia, some of the more enterprising packers have started in to pack fresh mackerel in tins, and they are meeting with great favor throughout the Dominion of Canada. A great many of the fresh fish that are caught along the Nova Scotia shores are sent by express to Boston, and there iced and sent well into the middle west. The writer counted more than 140 barrels of these in transit between Halifax and St. Johns, N. B., only recently.

The price paid to the hardy men who catch these fish is practically nothing—for the largest kind of fish they receive from 6 to 10 cents; while here on this market they retail all the way from 40 to 60 cents.

Mackerel, perhaps, is one of the best table delicacies we have, and the reason why it is not more universally used probably is the fact that a great many people have never yet learned how tempting and tasty an early fat quality mackerel is.

Since the great and steady advance in the price of meat the people are turning more and more to fish, particularly salt fish. They find the salt mackerel furnishes a tasty and substantial breakfast, served boiled, with boiled potatoes. Moreover, the mackerel appeals to the housewife for the further reason that it is easily and quickly prepared for breakfast.

Fishermen who have spent the better part of their lives catching mackerel have come to regard this fish as a creature of mystery. The mackerel comes and goes with some degree of regularity but where he comes from and to what retreat he goes no one seems to know, although all fishermen have their theories about the ways of the mackerel.

The catching of mackerel on our northeast coast is no work for an invalid. It takes a hardy man to brave the cold October winds that blow from the Arctic region over the fishing grounds of Newfoundland and Nova Scotia. But the fishermen of these sections are bred to their work. They come of a hardy race and reckon among their ancestors, as far as tradition will carry them, men who have tilled the rough New England land in the summer time and caught mackerel in the fall.

Little has been done in the way of conserving the mackerel, simply because he is a nomad who comes and goes, and appears to be beyond control so far as his habits are concerned.

THE FOOD OF OYSTERS.

Various investigations have shown that about 95 per cent of the food of the oyster consists of diatoms and that most of the remainder is composed of other equally minute plants or organisms on the more or less debatable borderland between plants and animals. The oyster obtains these microscopic organisms by drawing feeble currents of water between the open shells, straning them through the exceedingly minute orifices in its gills, and passing the filtrate by ciliary action into its mouth, which lies ensconced between two pairs of fleshy palps close to the hinge of the valves. Though the currents induced are feeble, they are constant, and during the course of twenty-four hours the water thus minutely strained is many times the volume of the oyster.

Dr. John W. Herman, one of the meat inspectors of the food inspection division of the health department, has notified Chief Food Inspector R. B. Blume that he will resign to enter the government service.

Trying to Improve the Race

Congress of Experts on School Hygiene Hold Session at Buffalo

THE preparation and care of food has long since passed beyond the academic stage. It is a vital force today in every part of the country. The care of the people is now getting serious consideration.

It is well understood that what we eat has much to do with our well-being. But it is not the end to all of the national health problem. Hygiene in its best sense is a necessary part of the health problem. So far the consideration of this subject has been general, and in a general way we have made material progress in improving the conditions under which we live.

Just now there is a special effort to improve the conditions under which the children of the nation live, and in no better way can this be done than by making an improvement in the hygiene of our public schools.

It is with this problem that the convention recently held at Buffalo dealt in its many phases. From Europe and America, wise men and women who had given the subject serious attention, gathered to give their views to the world.

School hygiene, it should be said, is not a new thing, and has been considered for many years, and has been acted upon for the benefit of the growing race. The old type schoolhouse is no longer recognized as a fit habitation for the growing race, and as fast as it is possible to do so these old unsanitary buildings are being torn down to make way for the modern school structure, the special features of which are its regard for the physical welfare of the child.

There is much, however, about school hygiene with which the public is not familiar, and it is the educational feature of the recent convention that makes it of peculiar national value. Experts who have for many years given the best there is in them to a study of school hygiene presented papers of exceptional interest on this subject. Some were entirely new to the general public while others were a restatement of accepted truths, presented from new points of view. All this wisdom has gone out to the world, and its influence on parents and on school boards of education, as well as on teachers generally, is bound to be felt in the near future.

Of course, there are boards of education that cannot be moved out of the rut in which they have been traveling. They stand for conservatism and will move vigorously against progress as expressed by advanced thought on school hygiene.

But the conservatives will pass away while the more progressive boards are moving forward with the spirit of the times.

School hygiene, sex hygiene and the betterment of the child, both mentally and physically, falls naturally within the scope of eugenics, and at the Buffalo convention, there was a recognition of this fact. Indeed, the study of eugenics, which has to do primarily with the future of the race, compels a consideration of school hygiene and such other things as have to do with the improvement of a future race, for it is impossible to give the children of the future an improved heredity unless there is a better race from which to inherit better quality. It happens, therefore, that hygiene is being viewed from the point of tomorrow as well as from today. We feel like improving the condition of our children for their sake and in doing so realize that we are benefiting their children and their children's children. It gives the subject a new interest, to which the people generally will subscribe as soon as they come to understand it better. Unfortunately for our children the public schools of the country are very largely in the hands of professional school men, trained by professional school men to follow certain approved methods. Naturally the fraternity of school masters become organized, very much as the plumbers and masons are. There is no objection to that when it is done openly. But when the fraternity of school masters work for the interest of their guild in the name of the child they do the children of the country an injury.

It is well enough to suppose that professional school men have a better understanding of the needs of school children than do the average lay men. But it is supposing too much to expect the school man to sacrifice his professional rights to the welfare of the children. He is first of all, like the plumber and the rest of us, selfish enough to consider his class first. Then he is prepared to consider the child.

This of course does not apply to all professional school men, but it does apply to so many of them that progress in school management that makes for an improvement in the welfare of the children has this obstacle to overcome.

School teachers' meetings are just as right and proper as meetings of carpenters or men of any other trade or profession, but the things we must understand better before we will make progress in school child welfare is the fact that these meetings called for the purpose of improving school conditions are in fact largely for the benefit of improving the condition of the teachers themselves.

When the lawyers hold a convention, it is not for the purpose of benefitting their clients, but rather for the purpose of bettering the lawyers' profession.

To repeat, this is all well, but the point about the school teachers' conventions is that the public is permitted to get the notion that they are met to improve the schools.

When we get this notion out of our heads we may be in a condition to encourage frequent conventions of boards of education that will meet for the avowed purpose of benefiting the schools.

The child and its parents who support schools are not fairly represented in the average convention, and for that reason progress in educational methods and the general treatment of school children has been very slow.

At the Buffalo convention the child was well represented. Methods for the improvement of the service to the child were not predicated upon the comfort of the teacher. They were treated for what they were worth to the child.

Having decided that school hygiene as set forth by these friends of the child is a good thing the next problem will be to make the teacher see it in the right light. So long as school hygiene is a pretty theory it will have the support of the professional school men. But when the putting of it into practice interferes with what the school master has come to regard as his rights, he loses what enthusiasm he may have had for the improvement.

And so it should be said, without doing an injustice to the professional school man, that if we are to have a better school hygiene, and better school methods generally we must look for the improvement to come through boards of education that are sincerely interested in child welfare.

The first thing to do is to help the child. The ways and means of doing this can be found by any average man who sits as a member of a board of education. It always happens that there are members of school boards who regard themselves as liberal minded men, willing to believe that the school men who have specialized on school work know best about school management. Hence they argue it is best to leave school work to the school men. Thus the professional school men manage our schools and the child suffers for things he might have if the school board would pay more attention to child welfare and less attention to the academic talk of the superintendent and his teachers.

If we are to benefit by the splendid work done for children at the recent Buffalo convention, boards of education throughout the country must take up the work of school hygiene and make it a living force for the child's sake, and not leave it to the superintendent to do as he pleases about it. The rights of the teachers should be respected. But it is not necessary to waste so much time over this as to neglect the children.

Vice Consul Leon Böhm de Sauvanne of Leghorn, Italy, reports that in the Province of Lucca and Siena the young olive fruit is healthy and abundant. Atmospheric conditions have been so far exceptionally favorable for the development of the olives, and the crop of 1913-14 promises to exceed, in both quantity and quality, the crop of 1912-13. The olive crops of the plantations near the Mediterranean coast, from Massa to Pisa, Leghorn, and Grosseto, were considerably damaged by sharp winds in June, when the trees were in full bloom.

Unhealthy Underground Restaurants

Impossible to Keep Many of the Cellar Kitchens Sanitary

IN its weekly bulletin for August 23, the Department of Health of Chicago discusses the question of underground kitchen and restaurants as follows:

The bad effects on health produced by the occupation of workrooms located below the surface of the ground and the desirability, in some instances at least, of limiting such occupation by law, have received attention by the Chicago Health Department during the last seven years. That these are matters of world-wide interest is shown by the bill introduced in the English House of Lords, having for its purpose the issuance of regulations governing temperature, light, ventilation, freedom from dampness, etc., which should be applied to all underground work places, including rooms used for clerical work and food preparation, applying special restrictions to such trades as wig-making, laundry work and tailoring.

The Chicago bakery ordinances have, since 1907, prohibited the establishment of underground bake shops with a floor more than 5 feet below the surface, and imposing such rigid requirements upon existing cellar bakeries with respect to light and ventilation that more than 350 such have been discontinued.

The restaurant ordinance has required since July, 1906, that before a license is issued for a restaurant the Commissioner of Health shall recommend the premises as "proper and suitable for the purpose from a sanitary and hygienic standpoint."

Ordinance provisions with respect to establishments in which wearing apparel is made (called "workshops") are such as to prohibit the operating of any workshop in any cellar or basement. This ordinance has not been tested in the courts, but has been pronounced of doubtful validity by the Corporation Counsel and prosecutions under it have ceased.

The general ordinances provide that no store, factory, workshop or place of employment shall be overcrowded or inadequate, faulty or insufficient with respect to light, ventilation, heat and cleanliness. These have not been invoked with respect to underground establishments of any kind because of their doubtful validity.

As to food producing establishments, considered apart from other classes of occupation, the installation of new places underground should be limited and the discontinuance of existing establishments so located should be stimulated. Such plants are, in general, without natural ventilation, inadequately lighted, subject to the entrance of street dirt, and liable to sewage flooding in times of excessive rainfall.

Natural ventilation of underground kitchens is usually near the ceiling. Even if an adequate system of mechanical ventilation is provided, the cost of operation is an important factor in the maintenance of the restaurant. There is, therefore, a constant tendency to save expense by cutting down the hours of operation of the fan as well as its speed. Even where such ventilation is adequate for dining rooms it is impossible. Free circulation of air, such as occurs above the ground level, can never take place in underground rooms, even if it is possible to provide openings through which dust and dirt do not enter. While it is possible to install reasonably effective mechanical methods for the introduction and removal of air, such installations are very difficult in existing buildings by reason of the low ceiling heights and the obstructions which occur from the presence of pipes and beams



rarely used in the workrooms where it is greatly needed.

In a built-up business district cellar locations are practically devoid of natural light. In exceptional cases access may be had to large air shafts, or the use of vault lights is sometimes practicable. Most underground kitchens depend wholly upon artificial lighting, which is unsatisfactory because of the additional heat produced, its cost, and because it does not operate as a germicide, as does natural light. Where daylight never enters cleanliness will be maintained only in rare instances.

One of the most frequent objections to cellar locations for food preparations is the necessity of maintaining open windows, doors and vent ducts at the street and alley level. These openings constitute a constant menace to cleanliness of the utensils used and foods prepared by reason of the entrance of filthy street dust.

Observations of cellars used for restaurant kitchens during the past few years show that some of those still in use are subject to flooding by sewage in times of heavy rainfall. We have sometimes noted the operation of the kitchen and the preparation of food by employes wading in sewage and have found in some instances that after the flood had subsided the most ordinary precautions to remove accumulations of sewage filth were not observed.

A suitable place for food preparation requires impervious floors, walls and ceilings of hard, smooth surfaces and ready access to all these surfaces for cleaning. In some underground kitchens the foundation walls of rough stone or brickwork form the enclosing wall of the kitchen. In other cases where ceilings and walls have been plastered the plastering is broken and the laths exposed as a "catch-all" for cobwebs and dirt. The floors of some old establishments are of rough wood, and, having been subjected to frequent repairs, are uneven and cannot be kept clean. In some cases where cement floors have been provided we find them of poor quality, rough and difficult of proper drainage. Many old restaurant kitchens contain wood construction, consisting of shelving, cupboards, tables, racks, partitions, etc., having an absorbent body and rough, unpainted surfaces. It is entirely practicable, with present-day methods of construction, to avoid the use of wood in a food-producing establishment.

The proper maintenance of some underground restaurants is impossible by reason of the cramped space in which the various operations must be performed. The preparation of the food, the cooking and serving must all be carried on in close proximity to the handling of dirty dishes and the disposal of garbage and refuse.

The lack of adequate provisions for the convenience of the various employes is marked in many underground establishments. Women's toilets in close proximity to like accommodations for men, lack of dressing rooms for one or both of the sexes, lack of adequate locker accommodations for street clothes are often found.

The newer restaurant installations, for which plans are required to be filed with the department, have avoided many of the structural defects and arrangements which occur in some of the older plants.

No general indictment of underground kitchens can be made, as it is true that some are above criticism and others are conducted in the best practicable manner to counteract the handicaps which an underground situation imposes.

STYLE AND HYGIENE.

According to Wilbur F. Cannon, former food commissioner of Colorado and now chief of the bureau of health of the Fraternal Union of America, the slit skirt is not without its hygienic compensations, even if it does offend or please the eye, as the case may be. The *Denver News* speaks of his opinions on the subject as follows:

Cannon becomes wildly enthusiastic about the present styles and deplores the fact that the West, which he proves by logical formula should be the home of the slit skirt and similar species of gowning, does not adopt the Eastern rage more readily.

Cannon's contention is that the present styles are not prone to induce immorality, and he refers to the second and third chapters of Genesis for spiritual guidance in the assertion.

Wilbur Cannon has delved into the analysis of articles a great deal more intricate than ladies' garb, so that his conclusions of the hygienic elements in the present fashions should be taken as of moment.

Cannon, who doesn't believe in shaking hands any more than he sanctions kissing—because of the possibilities of free travel for germs—sees five reasons why the slit skirts and X-rays are about the most healthful form of garmenting yet devised by the fertile minds of fashion dictators.

1. The X-ray, the slit skirt, affords freer circulation of air about the body. Air is a tonic and stimulant to the skin. (Conclusion to be supplied.)

2. Absence of so many underskirts makes less weight upon the hips, and may be called a prophylactic measure in kidney troubles. It may save backaches.

3. Absence of the usual amount of clothes necessitates more frequent bathing, thus opening the pores and causing freer perspiration. This means less burden on the kidneys. Here comes in the argument that the West is the natural home of the X-ray. It is in a climate like Denver that sufferers from kidney diseases are more numerous. Where there is much humidity these troubles are fewer, owing to much perspiring.

4. The latest fashion permits freer movement of the limbs and conserves energy therefor.

5. There is less labor required in ironing, washing and taking care of clothes.

He elaborates upon the idea of the beautiful effect of air reaching the skin. Fewer women than men have pneumonia, he says, simply because of low-neck gowns. The skin under a microscope appears like a sponge. The more it is exposed to the sunlight and the air the better.

Now, against this array of argumentative proof in the case of the slit skirt and X-ray gown versus the general public, what the prosecution has brought forth amounts to nil. Biblical proof of the morality of such gowning is right at hand with the former food commissioner.

Short skirts are another delight to the eye of the health bureau chief. Long skirts are the paradise of the pathogenic bacteria, he says, and shudders at the thought of the enemies to health that are carried about by the ladies.

Now, as to the moral issue in regard to the questionable skirts. Cannon hearkens back to the Garden of Eden (Genesis, 2:25, and 3). First, Adam and Eve were not ashamed. Second, the voice from heaven asked "everybody's ancestors" what person or thing had told the Garden of Eden Inhabitants that they were not dolled up. And the lady told on the serpent.

As to the conception of what constitutes a seemly garb for ladies, Cannon says that Allah directed women to conceal their faces. Allah doesn't change his mind as often as fashion changes the styles in Christendom, and so Turkish ladies still wear veils even when they are not in mourning. Revert for a moment back to the Chinese fashion. No "lady" of China could warrant that coveted appellation if she continued to trot around on the feet that nature provided for her. Unless tied into strange shapes, feet were a disgrace, an immorality.

Men overdress as well as overeat, according to Cannon. "It is only a pity that men cannot dress as sensibly as women. Their clothes today decrease vitality and dwarf strength."

The tendency of the lines of fashion now in vogue is the trend of styles that will continue as long as ladies have a "reasoner" and a sense of hygiene. Ladies who have not been provided with these special senses will continue in long skirts, "the invention of the devil, corsets," and will drape the human temple in bolts and bolts of weaving at the expense of their husbands.

The old Greek styles of dress weren't so bad, but Cannon does not favor bare feet, even in dancing. Feet are ugly, he says.

The health bureau chief, who represents a wholesome recoil from ideas that are out of perspective in regard to the changes in women's dress, will speak September 9 in Colorado Springs before the American Society for the Promotion of Public Health, having been asked by the famous Dr. Evans to appear upon the program. He goes shortly upon a lecture tour over the United States, promoting his ideas of health.

AMERICANS GREAT SUGAR EATERS.

In the fiscal year of 1913, ending June 30, the United States devoured or otherwise used approximately eight billion pounds of sugar, an amount never disposed of before in any twelve months.

"The figures issued by the Bureau of Foreign and Domestic Commerce, indicate that the United States is clearly at the head of the list of sugar consuming countries," says the bureau in its report, "the figures of the current year suggesting a consumption of more than eight billion pounds, while the latest available figures indicate a consumption in India of about 6,000,000,000 pounds, in Great Britain over three and three-quarter billion, Russia three billion and Germany two and three-quarter billion."

Our Washington Letter

By Our Staff Correspondent

WASHINGTON, D. C., August 30.—The Wilson administration is going to remove the guarantee from the label with as little delay as possible. That is, it is going to do that if there is no unexpected hindrance. Attorney General McReynolds, undoubtedly, will be called upon for a legal opinion on that point before Secretary Houston informs those directly interested that, after a certain day, their labels will no longer be permitted to bear the legend: "Guaranteed under the Food and Drugs act of June 30, 1906, serial No. 41144."

The legend is there because it is prescribed by regulation of the secretary of agriculture, under authority of the act. An ordinary layman, reasoning in the ordinary way, would say that the power to create is also the power to destroy, even as the right to self-government carries with it the right to misgovern. But the ordinary layman has a fool for a client when he acts as his own lawyer, wherefore it is safe to remember that this removal will take place if no obstacle is found to prevent.

On the day of its removal will go crashing another of the things constructed by Dr. Wiley, the man who is now emulating the example of William the Silent, whether from volition or force deponent knoweth not and cares a heap less. It was the savior of innocent children and defenseless women that framed the legend that, in many instances, has been more misleading than any thing that an unscrupulous manufacturer of foods may have put on his label because, by reason of advertisements, made by the author of the brilliant idea and the manufacturers, the purchaser has been misled into believing that the guarantee is a guarantee to the consumer that the article, ipso facto, was guaranteed to be the best that could be made. Of course, those who know that the sole object of the law is to prevent the use of positive poisons and positively deleterious ingredients and to warn the consumer if any adulterant, harmless in itself, was used, have never been misled by the legend.

Manufacturers of the highest quality goods have really been harmed by the manufacturers of inferior goods being able to freely use that guarantee to mislead unsophisticated buyers. Its removal will make those who are buying goods have a care to use ordinary methods of judging quality. The law is intended merely to prevent deception that could not be detected by the ordinary method of looking at the article.

The probabilities are that the department will require the manufacturer and the wholesaler to make the guarantee to the retailer in the form of a slip of paper to be enclosed in the package in such a way that it will not fall into the hands of the consumer and mislead him into believing that the government guarantees the quality of the goods. That is all the guarantee is for anyhow. It may be desirable to have the number of the guarantee put on the label, the same as the number of a cigar factory is put on the box, so that the internal revenue agents may identify the product without any trouble.

The department is not listening to arguments on the question as to whether the removal should or should not be made. The new men in the department are so thoroughly convinced of the foolishness of the Wiley regime that they do not see the necessity for holding hearings on the subject.

That is a rather raw assertion to make in view of the row and rumpus the Moss committee made in behalf of the then chief of the bureau of chemistry two years ago, but everybody should have remembered then that it was good politics for the party not in power to take up the grouch of a subordinate in a department, the head of which was an important man in the party in power. Dr. Wiley, evidently, did not think of the small part a grouchy subordinate, who furnished material for the minority party, plays when the minuority party moves up into first place. Instead of the Wilson administration breaking its neck to adopt Wiley ideas, it is steadily moving away from them, holding itself bound to administer the law as it finds it, not trying to write into the law what it thinks should be there, under pretense of making regulations.

Dr. Alsberg is responsible for this move to take the guarantee off the label and force it into the place where it belongs, in a place where it will reach the eyes of the man for whose protection it is given. In a public address he called attention to the desirability of having the law enforced so as not to create false impressions, the doing away of which is the prime object of the statute. He has been trying to educate the public to an understanding of the true import of the law. His idea of educating the public has been taken by Secretary Houston for application to all the work of the department.

The secretary has established what he calls a Bureau of Information with a newspaper man at the head of it. His work is to prepare announcements of what the department is doing or trying to do that will be understood by the public. The meaningless reports of scientists will be translated into the popular tongue so that those who pay the bills incurred for the production of the reports will get information as to what they are all about through the newspapers. The scientific publications will be continued, of course, but they will not be sent out with any idea that they accomplish the objects sought in the law founding the department, one of which is the dissemination of useful information.

As to whether the removal of the guarantee is good or bad for the manufacturers of food products, that is another question, and one to be answered by each manufacturer for himself. If a majority think it should be kept on the label, a few words put into the agricultural appropriation bill next winter would force Secretary Houston to restore it. That is where the manufacturer would have to act as a citizen entitled to impress his views upon congressmen and get his views embodied in a statute.

Thus far President Wilson has studiously refrained from any expression of opinion on the proposed amendments to the food and drugs act. His purpose now is to induce congress to legislate on the tariff and on the currency questions. Questions pertaining to the food and drugs act have been passed up to him but he has deliberately refused to act, because he intends concentrating the attention of congress and the country upon the questions he thinks should be disposed of first. For him to recommend this or that change in the food and drugs act would be to invite congress to divide its attention instead of focussing it on the work in hand. He has not only laid aside all such questions as have been put up to him but members of his cabinet know very well that if any of them "start any thing" the member so busying himself will not receive applause at the White House.

How well he has the men composing his administration in hand may be inferred from the fact that, while the tariff bill makes an important change in the meat inspection law, there has been no discussion of the subject that would serve to excite either the packers or the professional conservators of public health to such a degree of activity as to bring about any confusion. The change when made will make it possible for meat inspected in foreign slaughter houses to come into American packing houses with no inspection other than that given abroad.

Heretofore the intrdouction of a piece of meat into a packing house at which federal inspectors are stationed without an ante mortem inspection by such inspectors has been impossible. Even if the packer intended the meat for intra-state shipment he could not have it brought into such an establishment.

The force in the department of agriculture is so loyal to the chief that no professional agitator has been given material with which to make an uproar by suggesting that the change in the meat inspection regulations that would be made necessary by reason of the tariff law, would result in the wholesale poisoning of the American people. If any subordinate in the Wilson administration gave the minority party any such material, the chances are that there would be a vacancy in the department before the day that brought out the fact was done.

Pending the disposition of the tariff and currency questions, there is no liklihood of anything being done with any of the questions before the referee board or with the large number of cases under the food and drugs act. The hold-up may not be the best policy but that it is effective in concentrating the attention of congress on the subjects the president thinks should be disposed of is proved by the assiduity with which those questions are being considered.

Perhaps under any other policy the emulation of William the Silent would not be necessary. But when an administration sits tight, following the precedents of its predecessor, which provoked much bawling by the aforesaid emulator while the precedents were being created, controversies are not abundant. Friends of the silent one have undertaken to breathe the breath of life into the old controversies by making sarcastic observations about the care with which the policy that caused the howling was being followed, but the effort has been no more successful than the operation of trying to grind with water that has passed under the wheel.

So far as surface indications go, there is no thought on the part of the new administration of undertaking any great changes in the policies of its predecessor in the matters that caused such commotion during the chieftaincy of Dr. Wiley. In other words, the disposition made of the benzoate and whiskey questions seems to be regarded as final, notwithstanding the assumption of those who helped create and maintain those disturbances, that the advent of a new administration would be the signal for an up-turning of everything that was done against the advice and opinion of Dr. Wiley.

The establishment of the bureau of information is taken to mean that Secretary Houston is going to be prepared, in the event any of the holier-than-thou crowd or the impracticables who are good and honest but whose ideas are not workable, to give the public information that will show it that the fight that has been started on a particular question is a trade row and not a question of health or morals at all.

Of course, James Wilson suffered in the eyes of a good many of his fellow citizens because disaffected subordinates were allowed to present the issues in such a way as to mislead the public into believing that the trade questions were of health and morals instead of mere matters of trade and administration.

Apparently Secretary Houston is taking advantage of the lessons learned during the years from 1906 to 1912 and is prepared to stop any such foolishness in the event any body tries to start anything. He evidently does not allow anybody to set himself up as the great conservator of the lives of Americans so as to have a foundation from which to build a political sentiment favoring the one who starts such a fight for appointment as head of a proposed bureau of health. President Wilson has also given indications that he is going to insist upon subordinates doing their work or of getting out of the department to do their talking in the event any one of them should feel that the policy of the department was to poison American citizens, without at the same time drawing a public salary to help them along in such a campaign.

It is presumed that somebody will try to start something as soon as the Remsen board makes reports on the matters it has under consideration. The wonder here in Washington is that the fight against the members of that board has not been taken up and carried forward every day since the inauguration of President Wilson.

All the arguments used against President Taft and James Wilson apply as much against President Wilson and Secretary Houston for they are continuing the referee board and also the food and drug inspection board. In view of this death-like stillness, it is only natural to inquire whether great "moral" questions like "Why is benzoate" and "What is whiskey and "Why don't you enforce the law" cease to be matters of morals as soon as the man who propounds them loses hope of cashing in on a cabinet appointment, or something equally as good?

RECOVERY OF CELLULOSE FROM ASPARAGUS.

Consul General Robert P. Skinner, Hamburg, advises the United States Government that the invention of the much-discussed process for the recovery of cellulose from asparagus waste from canning factories and from asparagus stalks that mature after the edible crop has been gathered, is due to Prof. Otto Reinke, whose communication on this subject to the Institute for Chemical Technology at Brunswick is as follows:

For several years I have caused my employes to make tests concerning improvements in the use of waste in the agricultural-chemical trade, and through these tests, interesting results have been reached as to combinations of nitrogen (more especially fermented) and hydrates of carbon (more especially cellulose). It was found practicable to manufacture, with excellent success both as to quality and quantity, pure cellulose from asparagus waste (German patent "Anm. R." 36808).

The asparagus pulp waste, which represents up to 30 per cent of the whole asparagus stalk, and which decomposes very quickly on account of the high contents of water and asparagin, sours easily, has only a comparatively small value and low nutritive qualities as fodder, and must often be used as fertilizer when coming from the vegetable-canning factories. Attempts have been made to dry small quantities for use in place of excelsior for packing purposes (the price obtained for it amounted to $0.48 per 110 pounds), but this can be disposed of only in small quantities, as it decomposes more readily than excelsior. There was also an attempt to manufacture crude packing paper in a mechanical way, but without success. The plant is allowed to grow on the fields until November (in Brunswick up to December 15), and must then be removed and burned, on account of the fungous parasites that are injurious to the asparagus fields.

If soup extracts are manufactured from the boiled freshly washed asparagus pulp, it is an easy task to obtain a pure cellulose mass by a chemical method. The supply of the plant that is allowed to grow after the edible stalks have been removed is greater, and, after being cut in small pieces like chopped straw, such as is used in the manufacture of straw paper (if asparagus pulp is used it is scarcely necessary to chop it), it is treated with sulphurous acid, or, better, with 8 to 12 per cent lye of soda (Na_2O), in steam-tight vessels at 4 to 6 atmospheres for 1 to 3 hours. The result is a heavy brown solution of cellulosine, the incrusting substance, and of lignin, the albuminous substance, and in addition thoroughly disclosed cellulose in both short and long fiber form, in long drawn cells, and frequently in fine spiral form. According to the cutting by machinery, different qualities of cellulose may be manufactured. The result is often a beautiful pure cellulose product, and after the material has been washed and treated with oxidizing and reducing substances, for example, with diluted solutions of permanganate and sulphurous acid, it may be used for bandages, blasting material, paper, tissues, fine felt, cardboard, etc. If pulp and plant are supplied free by the large factories and directly from the fields, respectively, or even if it is necessary to pay a trifle for these supplies, it is easy enough with a very small plant, either in connection with some vegetable-canning factory or in a separate establishment, to carry on a periodical work in the asparagus districts.

One acre of asparagus land will furnish 2,849 pounds of asparagus (after deducting 20 per cent for fresh asparagus used and shipped in original state) and yield about 667 pounds of pulp or 80 pounds of dry substance, equal to 12 pounds of cellulose. One acre of asparagus land also furnishes, on an average, 1,958 pounds of plant or aftergrowth, or 1,602 pounds of dry substance, which will make 176 pounds of cellulose.

It is necessary that the outer-skin cell groups, fiber strands, and pieces of tissue attached to each other, be perfectly separated and, if necessary, sorted into different qualities.

AMERICANS LARGEST BEER DRINKERS.

It is generally thought that Germany drinks more beer than any other nation in the world. This is a mistake. Germany comes second. The United States consumes 1,851,000,000 gallons of beer each year, which is a hundred million gallons more than Germany's consumption. Russia leads the world in its use of distilled liquors, and the United States comes second with its consumption of 133,000,000 gallons. Although the United States is first as a beer-drinking nation and second as a consumer of distilled spirits among the nations of the world, the liquor dealers of America are having a desperate fight for the life of their traffic.

The saloon has been expelled from one-half of the population and from two-thirds of the geographical area of the country. In 1868 there were 3,500,000 people living in territory where the drink traffic has been outlawed; in 1900 the number has increased to 18,000,000; in 1908 or only eight years after, the number had doubled to 36,000,000, and today there are 46,029,755 persons, or a fraction over one-half of the population of the country, living in no-license territory. In the last five years the no-license population has increased a little over 10,000,000, which is more than ten per cent of the total population of the nation and thirty per cent increase in the number living in dry districts. Since 1868 the population of the country has doubled, while the number of inhabitants of dry territory has increased over thirteenfold.—*Review of Reviews.*

General Demand for Better Milk

Food and Health Officials Working to Improve the Milk Supply

IN every section of the country food and health officials have been aroused to the necessity of doing something to improve the milk supply.

The plan of State Chemist Stallings to make a comprehensive investigation of the public milk supply in Georgia has enlisted widespread and merited approval. There is perhaps no health menace, says the *Atlanta Journal,* more insidious than that of impure milk. The larger cities have the incentive and the means to conduct inspections of their own, but in many towns and in rural districts this important matter is sorely neglected. A thoroughgoing campaign of inquiry and education, followed by a vigorous enforcement of the State's pure food laws in this regard, should go far toward reducing typhoid and other diseases, and especially toward lessening the rate of infant mortality.

That there is urgent need for such a movement is shown by the result of the comparatively few tests already made. It seems, according to specialists, that ordinarily the bacterial count in milk should not run higher than a hundred thousand to a third of a teaspoonful, but some of the samples of milk examined by the state department have shown a bacterial count as high as twenty-two million. While laymen cannot fully appreciate the significance of such experiments, it must be evident to everyone that public interests demand such an investigation as the State Chemist will inaugurate.

In Atlanta and Fulton county well conducted movements to safeguard the milk supply and also to improve the quality of milk have been undertaken, and the results are distinctly gratifying. Indeed, the fact that Atlanta ranked first among all American cities, according to the latest census reports, in the reduction of the death rate among infants is ascribable largely to the city bacteriologist's watchfulness over the production and distribution of milk. It is clear, however, that in Atlanta much remains to be done in this connection; and in other communities, where no organized effort of this character has been made, the work should begin without further delay.

It is particularly gratifying that the state has taken up this task, for it is one that requires activity at once centralized and far-reaching. The peril of impure milk is a common peril to all the households of Georgia that are dependent upon a public milk supply. The State Department of Chemistry deserves, and will doubtless receive, the people's hearty co-operation in the great service it plans to perform.

DIRTY MILK.

Dirt plus summer heat makes milk a poison potion; increasing age increases its virulence, says the health bulletin of the Chicago Board of Health.

We feed this poison to our babies, and wonder why so many die.

Of all foodstuffs, milk is the most commonly and most seriously affected by dirt and heat. Very little, if any, milk escapes dirt contamination at some point between the cow and the consumer and very little, if any, is kept sufficiently cool pending delivery.

Being an excellent medium for bacterial life, germ multiplication goes on at a very rapid rate unless retarded by cold. A few bacteria entering the milk as it is drawn from the cow will, at a temperature of 70 degrees Fahrenheit, multiply at an approximate rate of 750 for one in twenty-four hours and approximately 562,000 for one within forty-eight hours. When kept at a temperature of 50 degrees Fahrenheit the multiplication is much less rapid, viz: five for one in twenty-four hours and twenty-five for one in forty-eight hours.

As the average age of milk consumed by Chicagoans is forty-eight hours and the average temperature to which it is subjected in transit to its consumer is approximately 65 degrees Fahrenheit, it readily can be seen that milk we drink and feed to our babies in its raw state is anything but a safe food.

Home pasteurization and the proper handling of milk after pasteurization will do much to eliminate the dangers.

Let us urge that you exercise extreme care in the selection of a milkman. Get the best you can; the best is none too good. Look particularly to the milkman's personal appearance; is he clean? Inspect his wagon, his milk bottles and the utensils he carries; are they clean? If dirty, don't patronize him.

Never buy milk served from a can; buy only bottled milk.

AFTER TUBERCULAR CATTLE.

"Barring the hardest kind of misfortune, tuberculosis in Virginia cattle will be practically stamped out within the next few years," said State Food and Dairy Commissioner Saunders, in discussing the tuberculin tests now being administered to herds in every portion of the State by inspectors of his office.

"The desperate fight this department and the cattle owners have been waging throughout Virginia for the last few years is bearing fruit," he continued, figuring over the tabulated reports of tuberculin tests administered in the State. "When we first began the fight against bovine tuberculosis the tests applied to herds all over the State yielded a general average of about 14 per cent reactors among the 100 per cent tested. The reports just coming into this office show that in many instances large herds are entirely free from reactors; in other cases only 1, 2 or 3 per cent of infected cattle are found; while the general average of all will certainly not exceed 6 per cent of reactors now discoverable in Virginia herds."

In discussing the factors that made possible the successful war of extermination on bovine tuberculosis in Virginia, Commissioner Saunders was quick to give credit to the General Assembly and an awakened and educated class of cattle owners.

Full and free co-operation between the cattle grazers, the State officials and the Legislature has been responsible, he said for the wonderful results accomplished. Until the discovery of the tuberculin test, by means of which infected animals can be removed from the herd before they have become so contagious as to infect the entire herd, bovine tuberculosis claimed a heavy toll from Virginia cattle. The introduction of the tuberculin test, and the consequent condemnation of many apparently sound cattle, was not affected without a prolonged contest, but the results have brought large reward.

Veterinary science is divided into two camps in reference to the possibility of milk from a tuberculin cow infecting a human being with tuberculosis, one-half maintaining that the bovine bacteria is of no malignant worth to the human system, while the other asserts the reverse. There is general doubt that the udder ever becomes infected, but it is almost universally admitted that milk can be contaminated by a tuberculin cow in such a way as to be deadly to the human drinker.

Once the bovine tuberculosis is wiped out of Virginia, reappearance of the disease can be easily prevented by the inforcement of the State quarantine laws, says Mr. Saunders. Only recently a herd of sixty-odd cattle was shipped into Winchester from New York without having undergone the necessary tuberculin test. They were quarantined at once, the State veterinary administered the tests, and eighteen infected animals were found.

In the fight against the disease, Commissioner Saunders has been greatly helped by the recent act of the General Assembly providing funds for the purchase of infected cattle on the basis of 60 per cent of the value of sound animals.

MINNESOTA'S A1 BUTTER.

The state dairy and food commissioner of Minnesota is receiving applications for permission to use the state brand on butter, as provided for under the terms of a law enacted by the legislature last winter. He believes that within a year many buttermakers will be putting out their product under the state brand, and it is hoped that he will not be disappointed. The law under which a buttermaker is au-

thorized to use the Minnesota seal and the A-1 brand of the state provides for absolute cleanliness and high quality. Application to use the brand is granted only to creameries that are modern and sanitary; that turn out high grade butter made from cream obtained from inspected herds. It is proposed that the Minnesota state brand shall mean the very best that is obtainable in the line of dairy products.

Minnesota has an enviable reputation abroad for the quality of its butter and cheese. It should make a serious effort to have our dairy products the standard of excellence in the markets of this country and elsewhere. That can be done and will mean millions of dollars to the farmers and buttermakers of the state. Minnesota butter commands a high price now because of its general excellence. It should command the top price at all times because of its superiority. Minnesota cannot afford to turn out anything except the best. It is a waste of opportunity to manufacture creamery products that are second rate, when there is every opportunity at hand for turning out a high grade article. Furthermore, the consumer is entitled to absolute cleanliness and to purity of the butter and cheese he buys. If the buttermakers of the state will do to their customers, as they would have others do to them, all will be entitled to use the state brand and all should be able to use it.

A VICTORY FOR HEALTH.

The final victory for Dr. Lankester of St. Paul, Minn., in his fight for bottled milk was scored in the assembly recently, only one vote being registered against him. No arguments against bottled milk have been offered beyond the fact that such an ordinance might hurt the can manufacturers and entail a little expense on the dairymen, and that was no argument at all. It was little more than to say that lengthening the public life does a wrong to undertakers.

Dr. Lankester says his next fight will be for wrapped bread. This, too, is necessary, although not of the immediate importance of bottled milk. All such ordinances, of course, temporarily inconvenience a few people. But the world no longer waits on individual convenience. The small disadvantage to the few is lost in the great advantage to the many.

The time will come speedily when it will be impossible to find any article of food exposed to contamination while on the way to the consumer.

Slowly the people are coming to see that it is easier to prevent disease than to cure it.

SHIP IMPURE MILK.

"Much of the cream shipped into St. Paul and Minneapolis is impure and of poor quality," said Joel G. Winkjer, State Dairy and Food Commissioner, in explaining the arrest of Morris Salisbury at Litchfield on a charge of sending decomposed and unwholesome cream to a St. Paul firm. "It is the intention of this department to prevent this cream from being received by the centralizers here, and also to prosecute the shippers whenever the evidence warrants such action."

John C. Nethaway, assistant attorney general, went to Litchfield to be present at the hearing of Salisbury in the justice court there.

The last legislature enacted what is known as the Johnston sixty-five mile cream bill. This prohibited the shipping of cream over sixty-five miles in anything except refrigerator cars unless the cream first was pasteurized. Judge Catlin declared the law unconstitutional. The state has appealed, but in the meantime, according to Mr. Winkjer, the city is being flooded with impure cream shipments from points beyond a radius of fifty miles.

MILK IN RUSTY CAN.

John F. Keene, charged by J. B. Linzmeyer, an inspector of the state dairy and food department of Wisconsin, with having had insanitary milk in his possession with intent to sell and offer the same for sale, withdrew his previous plea of not guilty in municipal court this morning and entered a modified plea of guilty. He was fined $25 and costs, which he paid. Mr. Keene was represented by Attorney W. N. Armington, who stated to the court that his client would not be willing to plead guilty to a charge of having sold or offered for sale impure or dirty milk but that he would admit the milk complained of had been contained in a rusty can, which is in violation of the law. The plea was accepted and sentence passed as noted.

NEW YORK MILK COMMITTEE.

Members of the New York Milk Committee have denied a report that the committee had completed the work for which it was organized and was ready to pass out of existence. Paul E. Taylor, secretary of the committee, said that the committee is really just starting its campaign for a clean and pure milk supply for the city, and that it has much work ahead of it.

"In an interview with Dr. Charles North," said Mr. Taylor, "such a statement was made. What was meant was that the demonstration company through which the milk committee conducted its experiments had completed its work. The committee itself is continuing its campaign for the education of mothers in the problem of infant health.

"We also expect to have passed at Albany this year the measure for centralized control of the milk supply, which failed last winter."

ARGENTINA MEAT SITUATION.

It is becoming clearer as the facts come to light that Argentina is in the same fix as the United States with regard to its beef producing capacity. Cattle raising there, as here, is being crowded to the wall by agriculture, as the Breeders' Gazette puts it, adding: "We have been regaled many years with tales of beef plenitude in the temperate zone of South America, but all this time Argentine energy was being directed not along beef production lines, but in grain raising. There is proof of this in a recent 50 per cent advance in cattle values at River Plate freezers, while in one week in June Argentine shipments of corn reached the unprecedented volume of 8,000,000 bushels, exceeding temporarily at least export of corn from the United States."

This situation may be surprising to those who have been predicting free Argentine beef as the panacea for our meat price ills. The enormously increased slaughter of female cattle in Argentina and the heavy influx of European immigrants looking for farming lands have tended to reduce beef production very greatly, while the enormous grain exports show how agriculture has replaced stock growing.

FINES FOR "BLUE MILK" DEALERS.

Six milk dealers paid fines in the municipal court of Minneapolis, Minn., for selling thin milk or cream, or both, and two others pleaded guilty to similar charges and will be tried later. Dealers, addresses, charges and fines follow:

John A. Berg, 2221 Fifteenth avenue S., thin milk, $10; A. Samuelson, Edina Mills, thin milk and cream, $30 total; George Burns, 2936 Emerson avenue S., thin cream, $10; George Hanson, 5400 France avenue, thin milk and cream, $30 total; Nels Pearson, St. Louis Park, thin cream, $10.

Stanley Gallant, New Brighton, was fined $10 each on two counts charging sales of thin milk and cream, but one fine was suspended.

Trials of John Anderson, 324 Plymouth avenue, and the Quaker Creamery Company, pleading not guilty to low butter fat charges, were set for August 30. Complaints were made by Milk Inspector John H. Lyle.

TRADE PRESS EFFICIENCY.

President H. M. Swetland of the Federation of Trade Press Associations in the United States announces that the program has been completed for the eighth annual convention at the Hotel Astor, New York, September 18 to 20.

Acceptances are in hand from over sixty speakers of national reputation in the manufacturing, selling, advertising and publishing fields. There will be fifty ten-minute addresses at the editorial, circulation, advertising, and publishing symposiums on vital questions affecting all those who have dealings with the business press of America.

Denver, Colo., August 18, 1913.

H. B. Meyers, AMERICAN FOOD JOURNAL:

Accept my congratulations on the special edition of the AMERICAN FOOD JOURNAL. Always a most valuable authority appertaining to food and drug law control, as well as the official journal of reputable manufacturers and dealers, this edition is clearly the most interesting compendium of valuable information to all interested in pure food and drugs, as well as the broader field of conservation of life and health, that was ever gotten out. The reference file of any student of these subjects is incomplete without it. I should feel as if I were not in touch with the world that I am interested in without the monthly number of THE AMERICAN FOOD JOURNAL. Its stalwart fight against real food and drug adulteration, as against the humbugs and fakers, who were rapidly making of pure food enforcement a screaming farce, has made it the standard of information in the United States in the field of conservation.

WILBUR F. CANNON,
Chief of Bureau of Health, Fraternal Union of America.

The Diet in Epilepsy

Influence of Food on Persons Afflicted with This Disease

By F. I. Wilbur

THE curious and mysterious yet terrible affliction known as epilepsy, has apparently been known to men of all ages and races since the beginning of time. Its appearance has been more or less truth, attributed to innumerable causes, yet amid all of the testimony thus far available, the only point on which men of all ages seem to agree is that diet exercises a more or less marked influence on the severity and frequency of its attacks

If we study the science of chemical combinations we find that nitrogen, chlorine, phosphorus or sulphur are all found in the structure of the human body as well as in many of the substances used by it as food. These elements can, under certain circumstances and in various combinations with each other or with hydrogen and oxygen, produce flames or explosions. They may therefore be regarded as the fulminating agencies producing, when properly controlled, the minute explosions causing normal growth in the human system or, when uncontrolled, the destructive explosions characteristic of epilepsy. Nitrogen and chlorine-containing foods seem especially dangerous for epileptic patients.

The simplest elements of food are able under certain conditions to form explosive and inflammable gases when combined with hydrogen. All organic substances contain carbon which is called the building stone of nature for organic compounds. The addition of varying proportions of hydrogen to released carbon forms hydro-carbons. When these are nitrated either by the addition of nitrogen compounds or by the action of the nitrogen of the air, they become explosive compounds. This chemical fact has been used to develop the manufacture of the powerful Sprengel explosives in use today.

The danger of combustion from an excess of intestinal waste products and the eating of salt is illustrated on a large scale by the fact that ships laden with guano have had almost instantaneous combustion result after salt water, accidentally shipped, had found its way to the guano.

Even without salt, however, stable manure seems under certain conditions to ignite and burn spontaneously.

For this reason the waste products of the body should not be allowed to accumulate in the system of any person. Every channel of elimination must be kept in a condition of normal functioning. This is of the utmost importance to those whose organism is in the state of unstable equilibrium which predisposes it to epileptic seizures of greater or less extent. Constipation must be prevented in epilepsy.

Technically speaking, epilepsy is not necessarily a disease, but a physiological tendency to a condition of unstable equilibrium of the biochemical elements controlling the vital processes. Its most terrible and characteristic features are exhibited in attacks known as *grand mal*, or great attacks of epilepsy. When only one or a few of its symptoms are exhibited the affection is called *petit mal*, and is usually characterized merely by a loss of consciousness for a moment or a few moments. This may occur while a person is talking and may pass off unobserved by ony one. It is a far more common affection than is generally supposed. The convulsions of children are another form of epilepsy, so is chattering of the teeth in sleep.

In cases of grand mal or great attacks of epilepsy the symptoms seem to be produced by cellular or intestinal explosions within the body, and the asphyxia resulting from the carbon dioxide and similar gases which are formed after their oxidation by the explosion of hydrocarbon gases. The after products formed depend largely on the amount of available oxygen in the system and cause some variations in the nature and degree of the symptoms manifested.

Mine explosions present certain curious analogies to the intestinal explosions occurring in epilepsy. In epilepsy cases, gastro-intestinal catarrh is a practically chronic condition. This catarrh seems to favor the accumulation of waste material in the system and retard its normal elimination, so that the gases of decomposition accumulate in the intestines or body cells. One of the chief of these is carburetted hydrogen.

Impairment of the functioning of the organs of the body may be produced by defective nutrition or by malformations or injuries of the nerves controlling these functions. Where such abnormal nerve conditions exist, it is clear that no permanent cure of the epileptic tendency can be obtained until the local cause of irritation is removed or corrected.

Where a child or adult is subject to epileptic seizures it is of great importance to make a thorough examination to ascertain if there are any local causes of irritation or obstruction to the nerve nutrition or normal functioning of any part of the body. Where enlarged tonsils or hemorrhoids are found to exist Stranahan thinks their removal advisable.

In the Morison Lectures on Epilepsy Dr. Wm. Aldren Turner of Edinburgh emphasized (See London "Lancet," 1910. Vol. II, p. 217) the important need of examination of epileptic patients of the following organs especially:

The nose—for foreign bodies or adenoid growths in the case of children, or for nasal polypi in the case of adults.

The eyes—for errors of refraction and their correction by glasses. Such errors of refraction are particularly frequent in epileptics, and may bear some relation to the characteristic rolling of the eyes during epileptic seizures.

Of the teeth for cavities of the teeth. The grinding of the teeth and frothing at the mouth are characteristic epileptic phenomena.

The stomach and intestines. Apart from the characteristic condition of gastro-intestinal catarrh, the chief causes of the chronically-recurring irritation of these organs are worms, dyspepsia or constipation. While the first is more frequently a cause of epileptic tendencies in children, no age is entirely exempt from the possibility of irritations by these three agencies.

The pelvic organs in women.

The explosive phenomena of epilepsy are chiefly thus manifested:

The aura or sensation of air on or in some part of the body. As the confined gases begin to accumulate in explosive proportions owing to organic decomposition or the obstruction of some channel of elimination.

The involuntary cry evidently produced by the explosion itself and the spasmodic closure of the glottis which it can cause.

The convulsions, chronic spasms and leaping or falling of the patient to the ground seems connected with the progressive accumulation and explosion of internal gases and with the force of the explosion with its uplift and downfalling tendency.

The rolling of the eyes, grinding of the teeth, foaming at the mouth, seem due to the progressive asphyxiation caused by the carbon dioxide or carbon monoxide caused by the explosive oxidation of the hydrocarbon gases. In a medical journal some time ago attention was called to the fact that similar phenomena are seen in the asphyxiation produced by strangulation or hanging.

The coma condition results when the asphyxiation is complete. Bleeding is a simple and primitive method of relieving this asphyxiation. The application of warmth or oxygen will also generally relieve the symptoms of asphyxiation.

Water is eliminated through the skin and various channels of elimination of the body. It is always present after explosions and the sudden oxidation of hydrogen-containing gases. Sometimes the unconscious elimination of water in sleep is the sole indication of the smaller attacks of epilepsy.

The sudden purging of the system through every available channel of elimination seems to be the result of the system to free itself of the confined gases and the material whose decomposition produced them. Herther and Smith have noted a constant relation between the intensity of intestinal putrefactions as revealed by the incdican and scatol eliminated by the kidneys, and the frequency of epileptic attacks.

The excretory products during or after an attack of epilepsy seem largely ammoniacal compounds, especially the

carbonate of ammonia, and albumines and phosphorus compounds. Sulphur is also frequently manifest in the attacks.

It seems apparent from these and other causes that they are factors in the development of the epileptic attack, for their elimination is coincident with the abatement or cessation of the symptoms of the disease.

Foods containing these elements of chlorine should therefore be taken in minimum amount by an epileptic whenever there are indications of a sudden change in the barometer, especially a barometric fall.

A curious feature of epileptic seizures is their tendency to recurrence at certain hours of the day or night, especially at 10:00 p. m. and about 4:00 a. m. They also show a marked tendency to be influenced in sympathy with atmospheric conditions. The accumulation of decomposition gases within congested portions of the human body shows a marked resemblance to the phenomena of the accumulation and even the explosions of mine gases in poorly ventilated mines. Channels of escape for the natural elimination of such gases are required in both cases and must be kept free from obstruction. Lime is useful in gassy mines and in epileptic conditions to neutralize the gases of decomposition.

Lime salts have been found distinctly advantageous in the treatment of epilepsy. Several Italian investigators have found that they have a definite action on the cerebral cortex. Soaking that cortex in a solution of calcium chlorate diminished its excitability, but salts such as sodium oxalate or sodium citrate had a contrary effect.

It does not seem to be stretching the facts too far to consider an epileptic as a highly sensitive individual upon the gases whose body meteorological influences act as upon the air pressure waves revealed by a barometer. It would seem advisable, therefore, that whenever the barometer is observed to fall or be falling the human epileptic barometer should seek a recumbent position and thus avoid the danger of a later fall. He should also guard himself or be guarded at the times when the barometric waves are at their highest and lowest points. All of these waves do not seem to affect all subjects equally. In some cases only the diurnal wave at 7:00 a. m. will coincide with an attack. The semi-diurnal periods at 10:00 p. m. and 3:00 to 4:00 a. m. seem most common, however.

The accumulating of the gases within the system before the attack seems to cause the "aura" the characteristic sensation manifested in various ways, which warns the epileptic of an impending attack. At this period if the right remedy can be obtained an attack may often be averted. Oxygen seems needed at this time, and as a recumbent position favors the accumulation of oxygen in the system, it is well to lie down.

Oxygen or lime containing foods are also beneficial. Voisin has reported a case of an epileptic woman who could avert an attack if she could obtain chocolate in time. Rodiet has stated that the gastric aura may sometimes be quieted by the ingention of orange flower water or of iced water if it be given in time.

For centuries a milk and vegetable diet has been advocated for epileptics, and some have been greatly benefited thereby. Today from the mass of somewhat conflicting opinions and experiments the facts about diet in epilepsy that seem best established are that certain forms of nitrogen-containing food, especially meat, and sodium chloride or common salt, which is reasonably abundant in the juices of meat, give a distinct predisposition to the attacks and increase the tendency to mental and physical deterioration of an epileptic. It further appears that the reduction of these elements in the epileptic's diet is followed by marked improvement, reduced frequency and lessoned severity in the attacks.

In all cases it seems advisable to reduce the proteid or albuminous food for a month or two and note the effect on the patient. A more liberal and easily assimilated diet should be substituted for it. The effects of any diet will vary somewhat with the age and occupation of the patient.

It is imperative that the eating by an epileptic be under careful supervision. Left to their own inclinations chronic epileptics and epileptic degenerates of all sorts will often gorge themselves with food and drink, especially just before an attack, and it is found that over elimination seems invariably to produce attacks in epileptics.

It is possible that the excessive craving for food before an attack may be due to one of two causes. It may either be due to increased activity of intestinal parasites such as worms, whose appetites are known to be voracious, or it may be an effort of the system to find in the food certain chemical elements, especially oxygen, which will assist it in warding off an oncoming attack. In the first case the administration of a vermifuge would seem advisable when any patient manifests a voracious and apparently never quite satisfied appetite.

In the second case care must be taken that the patient is well fed on easily digestible food administered at regular intervals, the principal meal being in the middle of the day, in order that the digestion of it may be completed before the patient goes to sleep at night. All food should be eaten slowly and thoroughly masticated or Fletcherized, especially if meat of any kind form a part of the diet. The stomach should never be overloaded, for this seems to induce excessive compression of gases, and waste products of any sort must not be allowed to accumulate in the system; not even in the pores of the skin. Rich food and pastries and alcohol in all forms should be avoided. Many subjects of petit-mal are prone to drink because it sometimes gives a temporary relief to their nervous condition, but alcohol merely masks—it does not cure the epileptic tendency. (Jan. Am. A., 1910, Lv. No. 15, p. 1289).

In the Morison Lecture on Epilepsy delivered before the Royal College of Physicians of Edinburgh, Dr. William Turner declares that "in any attempt to formulate the principle which ought to guide the physician in considering the dietetic treatment there ought to be kept in mind that nervous energy has its source chiefly in the albuminous and nitrogenized principle of food stuffs."

In epilepsy there is an excess of nervous energy, hence Turner and others find it advisable to exclude albuminous food from the diet of epileptics. This is called purin-free dietary, because the purin bodies are either absent or present in such small quantities as to be negligible.

All forms of meat foods, both white and red, contain purin bodies. Sweetbread, liver and beefsteak contain them in large quantities. In most kinds of fish, peas, beans, lentils, tea, coffee and oatmeal, they are present in only a moderate degree; and they are wanting in milk, eggs, bread, butter, cheese, the farinacea and in most fruits and some vegetables.

Turner found that the combination of a purin-free diet with salt—starvation was very substantially beneficial. This diet would exclude meat, and lessen the quantities of most forms of fish, peas, beans, tea, coffee and oatmeal.

Beef is particularly injurious to epileptics. Gowers, who, contrary to general custom allowed his patients meat twice a day, found that one of his patients would have epileptic seizures only after eating beef, but no other kind of meat seemed to provoke them.

Dr. Mersan of the West Riding Asylum in England, in his diet experiments with epileptics, found that although the meat diet apparently made little difference in the number or severity of the convulsions, yet it was found that when the food of patients consisted largely of meat their mental condition became more stupid.

Rosanoff and others reported a reduction in the number of seizures by a lessened meat allowance. As a result of his dietary tests he advised that an epileptic should receive the largest amount of carbohydrates and fats that he can assimilate without inconvenience; the smallest amount of proteids which is compatible with the preservation of the nitrogenous equilibrium, i. e., the amount of nitrogen taken with the food must not fall below the amount excreted.

At Craig Colony Shanahan says 7 ounces of meat or fish were allowed for workers and 4 ounces or ¼-lb. were allowed daily for those not employed. He states that the quantity of meat should be restricted for all epileptics irrespective of age.

Dr. Gillman Thompson advises that meat should be allowed only two or three times a week. It seems questionable whether it should be allowed at all in the case of epileptic children. Thompson says that some children with *petit mal* or even *grand mal,* improve rapidly on a strictly vegetarian diet or on a bland diet of which milk, bread and butter, and simple farinaceous foods, such as rice pudding, corn starch, Indian-meal pudding, etc., form the basis. He reports some cases of epilepsy among young children in which, while the medicinal treatment remained constant, a return to meat diet was invariably followed by convulsions, which were absent on a vegetable or exclusive milk regime.

It is somewhat strange that even carnivorous animals as well as animals like cats and other felines accustomed to a mixed diet, will develop convulsions from a too liberal allowance of meat in their diet, if at the same time they are kept in confinement. The inference would seem to be that if meat is given to any creature it must live much in the open air.

Garbini in the *Revista Mensile di Neuropalologia* for Dec. 1901, reported a diminution of 73% of epileptic seizures

following the suppression of salt and the administration of 1 grain of bromid a day. The seizures when they occurred were only one-third as long, and the mental and general condition showed a marked improvement. All were severe cases.

Lion reported remarkable benefit in 21 cases of epilepsy from the simultaneous suppression of salt and the administration of bromid and of brain extract.

Schaefer also had a remarkable mental and moral improvement in cases of rebellious epilepsy after the patients had salt suppressed in their food, and bromid mixed with their bread according to Balint's suggestions.

Taylor, says that in some cases the omission of common salt may be found to allow the bromid which is given to act with advantage; but in this, even more than in most morbid conditions, one has to remember that the patient has to be treated, as well as the disease

The simple diet recommended for epilepsy by Shanahan is a plentiful allowance of fresh fruits and vegetables (excluding cabbage, especially when cooked), butter, cereals, milk, eggs, fresh beef, mutton, fowls, etc., but no veal or pork. Above all, no alcohol, pastries, cakes, rich fried foods or condiments in excess. Special care must be exercised to see that all articles of food are of good quality, fresh and properly prepared before being used. Special claims have been made for butter-milk as overcoming intestinal fermentation, etc. Its use at Craig Colony has not shown it as bringing about any material reduction in the number of seizures.

For hundreds of years a milk and vegetable diet has been advised for epileptics, but a butter-milk and fruit diet would seem even better for it reduces intestinal fermentation.

While errors in diet or affections of the gastro-intestinal canal do not necessarily cause epilepsy, they easily precipitate epileptic seizures more especially of the sort known as *grand mal* and *petit mal*. *Petit mal* is found to be more favorably influenced by diet than any other form of epilepsy, but in all cases the amount of benefit derived from diet, will be more or less influenced by the cause or irritating agency which predisposes the epileptic to attacks. They will also be somewhat influenced by the time of day, the period of the month and the season of the year.

ATTORNEY M'KINLEY RESIGNS.

Mr. Charles F. McKinley, attorney for the Illinois State Food Commission, has tendered his resignation, to take effect October 1st. Mr. McKinley received his appointment from Gov. Deneen about four years ago, and was the first regular attorney for the department, the legal work previously having been performed by special counsel retained from time to time. At that time the legal work of the department was comparatively light, but during the past year or two it has increased so in volume as to require almost his entire time.

Upon his appointment Mr. McKinley proceeded to organize the legal department of the commission and established a system of records, dockets, files and indexes for keeping a record of the prosecutions. Informations and complaints for prosecution, which had formerly been prepared in a haphazard manner, were prepared under his direction in the office and sent to the local state's attorneys for prosecution. The evidence and all questions of law were carefully prepared before trial, and it was his practice to attend the trial of all food cases in the state and assist the local state's attorney.

While not a member of the Food Standard Commission, Mr. McKinley attended the sessions of that body, looking after the legal details of their work. He devoted considerable time to the study of the question of food standards, and prepared a paper on the subject for the convention of the American Association of Food, Dairy and Drug Officials at Mobile in June which attracted considerable attention.

A number of important cases carried to the Supreme and Appellate courts of the state were defended by Mr. McKinley. Among these was the prosecution against the Price Compound Co. of Minneapolis for selling a food preservative containing boric acid. In this case the constitutionality of the Illinois Food Law and the power of the Legislature to forbid the sale of preservatives containing boric acid were attacked. The conviction was sustained, and the opinion of the Supreme Court materially strengthened the Illinois Food Law. This case has since served as a basis for sustaining a similar prosecution in Minnesota against the same firm.

Mr. McKinley will continue in the private practice of law at Chicago and will make a specialty of food control law.

His successor has not been announced by Mr. Scott Mathews, the new commissioner.

EATING AND OVER-EATING.

The majority of people eat too much. It is safe to say that the average man eats four times the quantity necessary to sustain life, or to keep him in good health. He eats, not because he is hungry, but for fear that he may be hungry before the next meal—even indulging in a hearty meal when in an exhausted condition, says a writer in the *Dietetic and Hygienic Gazette*. At such times the digestive organs are unfit to digest an immoderate quantity of hearty food. Oftentimes gastric irritability, resulting from physical or mental exhaustion, is mistaken for hunger. Genuine hunger is one of the most delightful sensations experienced by man. When a person is very tired, instead of sitting down to a hearty meal, it is better to take a little hot soup or milk, when in the course of ten or fifteen minutes, he may with safety begin to eat slowly, masticating thoroughly, and should stop eating before he experiences a feeling of satiety. Such a course will result in a return of gastric vigor, and if this practice be religiously followed one will rarely suffer from indigestion or "dyspepsia." Our appetites are difficult to master, but when once under perfect control a long stride has been made in the matter of self-discipline.

One should not confine himself to a strictly vegetable diet, neither should he eat too much meat. "In older countries, the lower orders, as a rule, have but a low vitality. It may be truer to say that the vital volition is weak. Let the learned settle the definition. The fact is easily accounted for. During generations the majority of European agricultural populations lived upon vegetable foods, like the majority of Eastern Asiatics, and with the same result. Hard labor produces hard muscles, but vegetable food yields a low vital tension, so to say. Soldiers know it well enough. The pale-faced city clerk who eats meat twice a day will outfight, outlast and outstarve the burly laborer, whose big thews and sinews are mostly compounded of potatoes and water." Man is an omnivorous animal, his teeth show it, and he should recognize this fact and govern himself accordingly. Don't be like the people David referred to, "Their soul abhorreth all manner of meat, and they draw near unto the gates of death." Eat vegetables, eat meat, but eat sparingly, especially as you advance in years. As a man grows older, as Dr. Love tersely put it, "he should eat less, drink less alcoholics, worry less, frivol less, work less, but do better work, and eliminate more waste matter."

GERMAN OYSTER CULTURE.

The German oyster fishery lies between the west coast of Schleswig-Holstein and the North Frisian Islands in the sea called Wattenmeer. It covers about 5,000 acres. Previous to 1866, according to Consul T. J. Albert, it was the monopoly for centuries of the Danish kings, but in that year came into the possession of Prussia with the above-mentioned provinces. The fishery is now partly conducted under the management of the Prussian Fiscus and is partly leased. Hitherto the domestic oyster has not found favor in Germany and has been considered inferior to the foreign. The varieties called for in restaurants are English Natives and Holländer. Now an appeal has been issued by the chief official of the fishery claiming that by careful cultivation the Royal Prussian oysters have become equal in flavor to any foreign variety and that they ought to be patronized by the public. These oysters are, however, not to be confounded with the North Sea oysters, which are called "wild" and are much smaller.

A steamer and three sailboats are used on the Prussian oyster banks, while a motor boat takes care of the transport. All oysters are brought to List, on the island of Sylt, where they are carefully sorted. Empty shells and other sea animals are first removed and then the oysters are sorted into marketable and immature. The marketable are then placed in large iron tanks or basins lined with concrete (Beton). These basins are each 1,435 square yards in size and are provided with an arrangement by which, through a long pipe at each flood tide, fresh water is admitted into the basins. At ebb tide the receptacles empty themselves. The oysters receive enough nourishment from the water to be further developed. The oysters too young for marketing are divided into three sizes and planted at different places on the sea bottom. The most favorable places on the banks are those where the current is most active and brings with it the greatest amount of nourishment. Here the largest sized oysters are fattened, while the smaller sizes are planted in places where the current is not so strong and which cannot carry them away. In the administration building there are employed some dozens of workmen and the culture arrangements are considered by experts as the most approved in use.

Recent Laws and Rulings

(Federal Court) The addition of an ingredient to an article of food which is poisonous in sufficient quantities does not constitute an adulteration within the meaning of the United States Food and Drug Act unless the quantity used is such as may render the article injurious to health. The fact that flour is bleached in order to conceal the inferiority of quality is not sufficient to constitute an adulteration, the flour simply being whiter than the same grade of flour unbleached.

Lexington Mill & Elevator Co., vs. United States 202 Fed. 615.

(Maine) Packers or canners of goods in accordance with the approved methods, which are expressly guaranteed under the pure food act, are liable for any injury caused by eating such food; and the dealer selling such food to consumers and hotelkeepers and victualers who furnish such food to their guests for consumption are not liable for such injuries, though the food is in fact poisonous.

Trafton vs. Davis. 86 A. 179.

(Missouri App. Ct.) As a matter of law it cannot be said that oleomargarine is an imitation of butter or an article made in the semblance of butter.

State vs. Shortill. 156 S. W. 988.

(Federal Court) Shipping adulterated food from one state to another, though not for sale, violates the United States Food and Drug Act.

Philadelphia Packing Co. vs. United States. 202 Fed. 150.

(New Hampshire) It is within the police power of a state to enact laws forbidding the maintenance of unhealthful conditions where food is produced, stored or sold. So it follows that individuals can be required to rinse milk bottles thoroughly before returning them to the dealer.

State vs. Normand. 85 A. 899.

(Wisconsin) The word "package" as used in the Food and Drug Act refers to the immediate container of the article which is intended for consumption by the public, and not simply the outside wrapper or box containing the package.

McDermott vs. State. 33 S. C. 431.

(Alabama) A restaurateur must exercise the same degree of care in selecting and preparing his food which a reasonably prudent man, skilled in the art of selecting and preparing food for human consumption, would be expected to exercise in preparing food for his private table and is liable for injury to the health of customers for failure to do so. So it is that a railway company is liable in damages for serving spoiled oysters on its dining car.

Travis vs. Louisville & N. R. Co. 62 S. 851.

(Federal Court) Under the Acts of Congress, the Secretary of Agriculture has authority to promulgate regulations affecting meat and can require that a meat product shall not be sold as "sausage" if it contains cereal in excess of two per cent or water or ice in excess of three per cent, and if water or cereal are added it must be labeled "Sausage, water and cereal."

St. Louis Ind. Packing Co. vs. Houston. 204 Fed. 120.

(Illinois) It is within the police power of the state to forbid the sale of food containing boric acid; however the legislature cannot forbid the sale of a known wholesome article of food.

People vs. Price. 101 N. E. 196.

(New York) The New York city department of health, in supervising purchases of milk by a creamery company outside the city, having a permit to sell in such city, was not exercising extraterritorial jurisdiction, and the statute authorizing it to do so was not invalid as delegating to the officers of the municipality jurisdiction over the affairs of another locality.

Bellows vs. Raynor. 207 N. Y. 389.

(Federal Court) Under the Tea Inspection Act tea cannot be imported, no matter what its quality may be, unless by the decision of the administrative officers to whom the inspection is committed it is found to conform to the standards established thereunder.

Macy vs. Loeb. 205 Fed. 727.

"SAUSAGE" DEFINED.

Act of Congress June 30, 1906, chap. 3913, 34th Stat. 674, declares that no meat or meat product shall be sold or offered for sale by any person in interstate or foreign commerce under a false or deceptive name, and that the Secretary of Agriculture from time to time shall make such rules and regulations as are necessary for the efficient execution of the act. The Secretary of Agriculture promulgated a regulation, to be effective on April 1, 1913, prescribing that meat products sold under the name of "sausage" should not contain cereal in excess of 2 per cent, nor water or ice in excess of 3 per cent, and if water and cereal in excess of such percentage were present, the substance should be labeled "sausage, water and cereal." A manufacturer of sausages in a suit in equity challenged the authority of the Secretary of Agriculture to make such a regulation. In sustaining the Secretary's authority to make the regulation the Federal District Court judge said: "This court is no better informed than the judge of the Supreme Court of Michigan who wrote the opinion in Armour & Co. v. State Dairy and Food Commissioner, 139 Mich. 1, 123 N. W. 580, 25 L. R. A. (N. S.), 616. He said: 'Sausage is defined by all the lexicographers as an article of food composed of meat, salt and spices. The people generally so understand it. The writer of this opinion would be compelled to admit that until very recently he had no knowledge that cereal was used in the manufacture of sausage.' This judge, although eating sausage for seventy years, never knew or even heard that cereals were used in this toothsome delicacy until the beginning of the hearing on last Tuesday."

St. Louis Independent Packing Co. v. Houston, 204 Fed. 120.

WEIGHT OF BUTTER.

The Spokane City ordinance, Section 22, provides that a brick or cake of butter shall contain a pound net avoirdupois. Section 23 declares that whoever puts up, packs or sells any goods or articles by weight into any case or package, and fails or omits to mark on the package the gross and tare or net weight in pounds and fraction of a pound, shall be guilty of a misdemeanor. Sections 24 and 25 make it unlawful to sell or deliver less than the quantity bargained for, or to give less in weight than the prescribed standards. It was held, in a prosecution for a violation of the ordinance, that it was not unconstitutional as being beyond the city's power, nor void for unreasonableness; but a sale of butter in cartons containing less than a pound avoirdupois was not a violation of the ordinance where such carton had plainly marked on each end the words, "Full weight 15 oz., net 16 oz. gross."

City of Spokane v. Arnold, Washington Supreme Court, 131 Pac. 815.

JURISDICTION OF BOARD OF HEALTH.

The Louisiana Act No. 98 of 1906 confers jurisdiction on the State Board of Health over the subject matter of the manufacture, sale and inspection of foods within the state in so far as the same may affect the public health. The board may adopt a sanitary code of rules and regulations having the force of laws throughout the state.

Board of Health v. Susslin, Louisiana Supreme Court, 61 S. 661.

REGULATION OF SALE OF MILK.

In a prosecution for violation of the New York Agricultural Law by the sale of adulterated milk, it was held that sections 30 and 32 defining adulterated milk as milk from which any part of the cream has been removed, and providing that no person sell, exchange, or offer for sale any adulterated milk, and that all milk not pure must bear a label upon the can, are not invalid, even though they are applicable to interstate commerce as an attempted regulation thereof. The object of the statute, as stated in section 51, is to prevent deception in the sale of dairy goods, and preserve the

public health, and does not exclude any milk from sale. Section 52 provides that a sale of each one of several quantities of impure milk shall constitute a separate violation of the act. It was held that the penalty provided may be assessed upon each can of impure milk sold.

People v. Abramson, New York Court of Appeals, 208 N. Y. 136, 101 N. E. 849.

VALIDITY OF OLEOMARGARINE STATUTE.

Michigan Public Acts, 1899, No. 147, is entitled "An Act in relation to the manufacture and sale of oleomargarine or imitation butter." Section 4 of the act prohibits the use, in connection with the sale or advertisement of any substance designed as a substitute for butter, of the word "butter," "creamery," or dairy, or the name or representation of any breed of dairy, cattle or any combination of such word or words commonly used in the sale of butter. Section 7 makes it a misdemeanor to violate the act punishable by fine and imprisonment in the county jail. It was held that the act violated the Michigan Constitution, Article 5, Section 21, prohibiting any law from embracing more than one object which shall be expressed in its title, because it does not suggest in its title that an advertisement of any article used as a substitute for butter shall contain the words "butter," etc.

Shepherd v. Connolly, Michigan Supreme Court, 141 N. W. 556.

PREPARATION AND SERVICE OF FOOD.

A law passed by the Legislature of the State of New York during the session of 1913 comes into effect September 1, 1913.

It provides for the cleansing in a sanitary manner of all food retainers, dishes or other containers before use in hotels, public restaurants, public dining-rooms, dining-cars or steamboats and public, penal, or charitable institutions in the State. It prohibits the use in such cleansing of water which has become unsanitary by previous use.

The State Commissioner of Health is given power of inspection of all such public places, with right of access to the kitchens therein, right to adopt rules and regulations for the enforcement of the statute, and to appoint inspectors.

Violation of the statute is made a misdemeanor.

Laws 1913, chap. 552, General Laws, Art. 17-A.

SEIZURES OF FOOD AND DRUGS.

Reports of twenty-one seizures of food and drug products under the Food and Drugs Act have reached the Department of Agriculture from its several inspectors and laboratories. All these cases are now pending in the courts. These included seven seizures of adulterated and misbranded wines, shipped by Ohio concerns; a seizure of adulterated vinegar; a seizure of "U-All-No" mint tablets; a seizure of canned peaches; a seizure of canned peas; a seizure of dried apples, and a seizure of eggs. Among the different seizures were the following:

Thirty-one boxes of "U-All-No" mint tablets, shipper, the Manufacturing Company of America, Philadelphia, Pa., were seized in New York City. The ground of seizure was that examination showed the presence of talc in these tablets.

Eight-eight hundred pounds of dried apples, shipper, Davidson Bros., Inc., Glasgow, Ky., were seized in Cincinnati, Ohio, on the allegation that examination showed these apples to be moldy, fermented, with odor, decomposed, badly infested with weevil and containing weevil excreta.

Twelve tubs of shell eggs, shipper, the Western Egg Yolk Company, Jersey City, N. J., were seized in Jersey City. The alleged charge was that examination showed the eggs to be rots and spots of lowest grade and unfit for food purposes.

Forty-three barrels of "Royal Crown Brand White Distilled Vinegar" and "Royal Crown Brand Caramel Col'd Distilled Vinegar," shipper, Dawson Brothers Manufacturing Company, Memphis, Tenn., were seized at Meridian, Miss. The allegation was that the vinegar was adulterated by the addition of water which reduced its strength.

Over twenty cases of Jackson Brand Peaches, shipper, J. Luddington & Co., Baltimore, Md., were seized in Richmond, Va. The allegation was that examination showed adulteration by the addition of 15 per cent of water.

Twenty-four cases of Celtic Brand Peas, shipper, S. H. Levin's Sons, Philadelphia, Pa., were seized in Richmond, Va. The allegation was that the product was decomposed, sour, and spoiled.

Seventy-seven bottles of "Champion" wine, shipper, the Nectar Company, New York, were seized in Chicago, and 189 bottles of the same wine, shipper, the same company, were seized in Cleveland, Ohio. The allegation was that the product was misbranded in that it was labeled and packaged in a manner that gave the impression that it was a champagne.

A fine of $50 was imposed upon the Philadelphia Pickling Company, which withdrew its former plea of not guilty and entered a plea of guilty. This corporation, doing business at Belleplain, N. J., was alleged to have shipped into Pennsylvania a quantity of tomato pulp which was adulterated in violation of the Food and Drugs Act. The product bore no label but was shipped as tomato pulp.

Examination of four samples of the product by the Bureau of Chemistry of the Department of Agriculture showed that they were much too high in molds and in bacteria and were composed in whole or in part of a decomposed product. Adulteration of the product was alleged because it consisted of a filthy, decomposed, and putrid vegetable substance, that is to say, tomatoes containing yeasts, spores, bacteria, and molds.

The United States Circuit Court of Appeals affirmed the judgment of the lower court in another case against the same Philadelphia Pickling Company. The lower court had imposed a fine of $100 for alleged shipment of adulterated tomato pulp from the company's place of business in New Jersey to its place of business in Philadelphia, where it was to be examined and tested for a customer in London. The paste, unless it could reach the English standard, would not fill the customer's requirements. Having failed to meet the test it was immediately destroyed. There was, however, an interstate movement in the course of commerce, and as the goods were adjudged adulterated, this shipment was held to have been made in violation of the Food and Drugs Act.

Ten cases of unsold tomato conserve in the possession of Microutsicos Bros., 59 New Borwery, New York City, were libeled for seizure and condemnation filed against them by the United States attorney, acting upon a report of the Secretary of Agriculture. It was alleged that the product had been shipped from Pennsylvania to New York. Adulteration was charged because the substance consisted of decayed tomatoes. The tomato cans were labeled: "Tomato Conserve Conserva di Tomate Rossa. Greek Flag (Picture of Greek Flag) Brand. Packed according to Pure Food Law.—Packed by Coroneos Brothers, Philadelphia, Pa."

No claimant appeared for the property and the same was ordered destroyed.

Twenty-five packages containing tomato paste, alleged to consist in part of a filthy and putrid vegetable substance, were ordered destroyed by the court in Chicago. The product was found in the possession of Emilio Longhi, doing business as the Italian & Greek Products Co., 1518 South Wabash Avenue, Chicago, Illinois. It bore the label "Rosso Tomato Paste—(Design, Tomato)—Conserva—The Pulp used in the manufacture of the contents of this can contains no manufactured acids or artificial coloring. Kansas Canning Co., Kansas, Ill."

Twenty-five cases, each containing twenty-four bottles of tomato catsup, were likewise destroyed after judgment of condemnation and seizure was entered in Kansas City, Kas. They were in the possession of Larson Bros., Wholesale Grocery Co. (Inc.), Kansas City, Kas., and it was alleged that they had been shipped from Missouri by the Neosho Canning Co., Neosho, Mo. Besides adulteration, which was alleged because the substance was unfit for food, misbranding was also charged because the quotation and design on the label of each bottle conveyed the impression that it was manufactured from superior stock and was of first quality, whereas examination showed it to contain excessive amounts of molds, yeasts, and spores and other bacterial organisms. Each bottle bore this label: "Neosho Brand Superior Catsup. Contents: Salt, Ripe Tomatoes, Sugar, Spice, Onions, Distilled Vinegar, and 1/10 of one per cent Sodium Benzoate. Packed by Neosho Canning Co., Neosho, Mo."

MICHIGAN STATE DAIRY AND FOOD DEPARTMENT—SPECIAL BULLETIN NO. 23.

Advertisements of the Ensign Remedies Company at Battle Creek, Mich., attracted the attention of this department some time ago and an employe was instructed to answer the "ad." The literature sent him in response consisted of two booklets extolling the virtues of the Ensign Remedies.

The Ensign Remedies in these booklets are recommended for all the diseases, mental and physical, that men and women are heir to, and then some; the only disease we can think of that is not mentioned in the book being "political itch."

Among the diseases specifically recommended by the Ensign Remedies are deafness, barber's itch, goitre, gray hair,

bunions, cancer, bow legs, lockjaw, ingrowing toenails, toothache, tuberculosis, smallpox, warts, worms, rheumatism, paralysis, rupture, mumps, tobacco habit, epilepsy, cross-eyes, cataract, emaciation, and corpulency. The various remedies have all the same outward appearance. Each consists of a small vial holding 4 drams containing small white pellets about the size of a mustard seed. The price is $1 per vial and six pellets is a dose. The different remedies which are to be taken internally are distinguished from each other by numbers and letters.

A distinguishing feature is the use of internal remedies for mental diseases. According to their booklet, if you are bashful you should take Remedy 186 A. If you have delusions that you see animals and reptiles, you should take 187 A and B; but if you only "see" persons and people then 187 E and F is the proper thing. If you have a religious delusion that you are "lost and damned," the book says take 187 L and M; but if you only "despair of your soul's salvation," take 188 E and F.

For stage fright the book recommends 205 A and B. If you are disappointed in love you are also advised to take 205 A and B, but if you are married and your wife is jealous, give her 195 A and B. If the hired man is lazy and lacks ambition, the book recommends 196 A and B, but if he is only "obstinate and unreasonable" give him 199 A and B. If you have a general tendency to commit suicide, take 202 A and B, but if the tendency is to suicide by the razor route, the book advises 202 F and F; but if you prefer the gun route, then the book advises 202 G and H.

What are these remedies that cure everything from cancer to corpulency, from disappointed love to ingrowing toenails? In the literature it is called the "Biochemic Treatment."

Ensign says "whatever is sufficient to build a human body is sufficient to keep it in repair." The booklet says "the Ensign Remedies are composed of foodstuffs and substances necessary to every human body." The booklet also states "these remedies are to be relied on in the most dangerous ailments. The appropriate remedy will relieve pain more quickly and certainly than the most powerful drug."

The booklet also states: "Remember you are not taking medicine, but absolutely essential material, which will be used if needed and thrown off as waste if it is not."

Our drug analyst sent for the respective cures for appendicitis, hay fever, and pneumonia The analysis of each remedy showed each to be composed of 100 per cent sugar. We doubt the efficacy of sugar as a cure for love sickness where the system is already over-cloyed with sweetness. Perhaps it might do for jealousy or irritable dispositions. Anyhow, if residents of Michigan want to try the sugar cure for all diseases, let us suggest that instead of buying the Ensign Remedies at $1 per vial, which is at the rate of $59 a pound for sugar, that they take as much sugar as can be held on the point of a penknife three times per day. It will probably accomplish fully as satisfactory results.

JAMES W. HELME,
State Dairy and Food Commissioner.

COLD STORAGE PROVISIONS.

For the information of those interested in the cold storage law of North Dakota, Commissioner Ladd sent out the following bulletin:

Private homes, hotels, restaurants and refrigerating cars are exempted from the provisions of this Act.

Products which are kept for 30 days or more in cold storage at a temperature of 40° or below, come within the provisions of this Act.

All refrigerating warehouses must pay a license fee of $10 to the State of North Dakota, and keep their places in sanitary condition to comply with the statute.

All refrigerating warehouses shall keep an itemized account or record of receipts and withdrawals of articles of food, which record shall be open to the Food Commissioner at all times.

Every cold storage plant shall file with the Food Commissioner on or before the 6th day of January, April, July, and October of each year a report, as provided by law, showing the condition existing on the first day of the month and the kind or character of products, together with the amount of each stored there, and also the date when placed in storage.

No article shall be placed in cold storage which is in any way derived from diseased, tainted, or deteriorated food products, or if the same is not slaughtered, handled or prepared in accordance with the law.

Products once removed from cold storage shall not be again returned to cold storage.

No article of food shall be kept in cold storage for a longer period than 12 calendar months.

All products going into cold storage or coming out of cold storage shall be marked in accordance with the provisions set forth on page 6 of special bulletin 12.

Retail dealers who handle cold storage products of any kind must display a sign, "Cold Storage Goods Sold Here."

Every package, basket, box or other container in which articles of cold storage are furnished to the purchaser shall be marked plainly and conspicuously with the words, "Cold Storage Products." Or there shall be attached to such container a placard or sign bearing said words.

AGAINST A BOTTLING COMPANY.

A decision of interest to those interested in the enforcement of the law relating to food and drugs was rendered by Hon. Calvin N. Miller, judge of the Court of Criminal Correction of St. Louis, on August 25th.

The Empire Bottling Company and Louis Schnellman, its president, was charged with the sale of a non-intoxicating liquor, namely—soda water, which was claimed to be adulterated by the use of saccharin as one of its ingredients.

A motion to quash the information was filed on the part of the defendant, averring that the law was unconstitutional in that the title was indefinite, contained more than one subject and did not provide for the defining of when non-intoxicating drinks shall be said to be adulterated, and that the act in question in prohibiting the use of saccharin in non-intoxicating drinks alone was an unconstitutional discrimination in favor of non-intoxicating drinks, and that the law was therefore unconstitutional and void.

The law in question was passed in 1911 by the legislature of the state of Missouri, and it provided a penalty for the sale of adulterated or misbranded non-intoxicating liquors, and that saccharin should not be used in the manufacture of same. Nearly a score of cases were brought by F. H. Fricke, Food and Drug Commissioner of the state, and by agreement of counsel, the case against the Empire Bottling Company was selected as a test case for the purpose of determining the constitutionality of the law. The question was argued orally and by brief by Rassieur and Schnumacher, representing the defendant, and John P. Leahy, attorney for the food and drug department. Briefs were submitted.

This was the first case in which the right to classify food for purposes of regulation was challenged in the courts of the state of Missouri, and there is no authority of the courts of last resort in the state dealing with this particular question. It was argued by Mr. Leahy, for the state, that the right to regulate involved the right to classify, and this view was sustained by the court, and the law held to be constitutional on all points.

A large number of prosecutions will follow at the instance of the food and drug department.

COCOANUT AND VINEGAR CASES.

The Secretary of Agriculture has just published notices of judgment against a shredded cocoanut manufacturer and a vinegar company.

In the case of L. Shepp & Company, a corporation of New York, analysis of the department alleged that a "50-lb. Paragon No. 1, Shredded Cocoanut," shipped into the State of Pennsylvania, was adulterated and misbranded in that cane sugar had been added to the cocoanut and that the statement "Shredded Cocoanut" on the label conveyed the impression that the product was pure cocoanut, whereas it was a mixture of shredded cocoanut and cane sugar. The defendant company entered a plea of guilty to the information and the court suspended sentence.

In the case of Dawson Bros. Manufacturing Company, a partnership of Memphis, Tenn., the Government alleged adulteration and misbranding of a quantity of vinegar shipped into the State of Texas. Part of the product was labeled "Dawson Bros. Mfg. Co., Pure Fermented Apple Cider Vinegar. (Circle D) Brand. Memphis, Tenn.," and the other part was labeled "Dawson Bros. Mfg. Co., Pure Apple Cider Vinegar, Memphis, Tenn." Adulteration was alleged for the reason that analysis of the department showed that a dilute solution of acetic acid or distilled vinegar had been substituted wholly or in part for the genuine article. Misbranding was alleged for the reason that the statement "Apple Cider Vinegar" appearing on the label conveyed the impression that the product was a genuine apple cider vinegar, whereas it consisted in whole or in part of a dilute solution of acetic acid or distilled vinegar. The defendants entered a plea of guilty to the information and the court imposed a fine of $25, with costs of $15.55.

Self Rising Flour and Home Made Bread

A GOOD deal of solicitude has been expressed, both in and out of the trade, by those who fear that the business of making bread will one day be left entirely to the professional baker, says G. D. Crain, Jr., in the *American Miller*. Those who have taken this stand see in such an outcome a real menace to the prosperity of the miller, for the reason, as they put it, that baker's bread is not so palatable as that made in the home, and less of it is consumed; and also because the baker makes a point of using the flour which will "go furthest," and will give the most loaves for a given weight.

Without attempting to argue the question of whether it would be a benefit or a disaster for the bread consumed by the country to be baked exclusively by those who are in that business, the fact remains that a new factor of considerable importance has been introduced, the effect of which is likely to have considerable bearing on the subject referred to above, the proportion of baker's bread consumed in the home. It is the growth of the production and consequently of the demand for self-rising flour.

Baker's bread is chiefly used in those communities where the delights of hot biscuit are unknown, and where the ravishing muffin and the inimitable hot roll are not being enjoyed. In other words, only in sections of the country where cold bread is the rule does the baker have a chance to attain a full measure of success. That is another way of saying that the Southerner, who is the sponsor of hot bread before all the world, and who has defied the doctors and applauded the dusky monarch of his kitchen through the enthusiastic consumption of hot biscuits, muffins and rolls, is the most difficult of all prospects for the baker to win over.

Southern homes are regarded as the bulwark of the flour trade by millers who cater to that section. They believe that no matter how earnestly the baker appeals to the housewife to let him assume the disagreeable task of presiding over the oven, and no matter how elaborately he describes the sanitary precautions which have been taken in order that his bread may reach the home table clean and palatable, the men of the South will insist on getting their bread, or the most of it, steaming hot and ready to melt the butter which must be spread carefully over the surface of the cold loaf purchased from the corner grocery and delivered there along with thousands of others by the baker's wagon.

It is for this reason that self-rising flour has reached its greatest popularity in the South. Southern millers, who introduced that character of flour more or less as an experiment, have found that it has taken hold like wildfire, and other manufacturers, with mills outside the immediate territory, have seen the handwriting on the wall and have made provisions for the newly created demand by providing a flour that required no addition of yeast in order to be leavened. Thus the South is now consuming more flour of the self-rising type, probably, than all the rest of the country put together, for the reason heretofore set forth, that offering it is simply catering to a demand for hot bread that has already existed. It has made it easier and more convenient to get hot biscuit than ever before, and made it possible for homes which have not been producing their own breadstuffs and pastry to make them easily and conveniently.

It occurs to the observer, however, that the millers of other sections will be overlooking a bet, to lapse into racing parlance, if they fail to develop the possibilities of the field which has been developed by their *comfreres* south of the Mason and Dixon Line. The chief reason for the purchase of baker's bread, which, in spite of all its warmest advocates can say of it, is not what it is cracked up to be, is convenience. It is so simple, so easy, to order bread from the grocery, ready to cut and serve. It is easier than buying "instantaneous coffee" or soup that has only to be heated before serving. And the house-wife in a two-by-four apartment, with a toy kitchen and not any too detailed knowledge of the culinary art, takes full advantage of the opportunity offered to get her bread without having to do a blessed thing to it. Besides, eliminating bread-making gives her an hour or two more at the matinee or the department store.

That has always been the situation heretofore, because the use of yeast and the preparation of other ingredients has involved first, time and labor, and second, professional skill which is not always possessed by the amateur cook, and therefore has introduced an element of uncertainty into the production of the food. In fact, the hardness of Mrs. Newlywed's biscuit, and the toughness of her pastry, have been stock jokes of the humorists, which, while not necessarily connected with the leavening part of it, have served to show the lack of confidence reposed in her by those who had had experience with her products.

With the feature which is confessedly the most difficult with bread-making eliminated—the necessity of mixing the materials required for leavening—the matter of making bread at home changes from a difficult and sensational task, to be attempted only by those daringly adventurous, into a simple proposition as easy as A. B. C. Making bread has always been considered easy by experienced cooks, even though they confess to an occasional failure; but the amateurs of the kind referred to, especially those in the big cities, who have possibilities of flour consumption hardly dreamed of by millers, have never been able to regard it as anything but a big, uncertain, scary proposition, compared with which the simple matter of paying five cents for a nice big loaf sufficient for at least one meal, and maybe more, has been welcomed as though created by the wand of a fairy godmother.

Therefore, entirely apart from the question of substituting direct dealing with the housewife in place of the indirect business secured through the intervention of the baker, the possibility of increasing consumption offers itself. With baker's bread as the staple commodity, and bought simply because it is a staple, the flour manufacturer has had little opportunity to increase his business beyond certain fixed limits. But with a vista of hot biscuit, griddle-cakes, muffins, pastries and other equally attractive oven products opening up before her, what house-wife with any real enthusiasm for her work would fail to use up more flour than did the baker in producing the two or three loaves which constituted the daily requirements of the family?

Of course, some pancake flour, with a self-rising feature, has been sold in the North, though not enough to make more than a dent in the situation. It is only by going after self-rising flour possibilities on a big, broad scale, and by educating the public in communities where hot bread has been a dream—or possibly a nightmare, if the physicians have been too implicitly believed—to what can be done by means of the new product, that the business can be developed to its maximum limits.

And speaking of educational possibilities, it must be remembered that the public has been talked to, or at, by Dr. Wiley and others on the subject of whole wheat bread until the demand for flour with the phosphates left in has become, while not pressing, at least an interesting potentiality. Self-rising flour supplies the missing material, for, as one of the leading authorities says: "A wheat kernel contains phosphates. Nature has placed them close to the hull of the kernel. The consumer demands a flour from bran. The modern milling process supplies this, but in removing the bran, it also takes away the phosphates, so important in food value. The phosphate leaven used in self-rising flour restores it to its proper phosphatic constituent. The phosphates are there blended in precise percentages, and perform a two-fold task, leavening the biscuit and increasing the qualities of nutrition by supplying the phosphates required by the body."

Thus the miller who desires to make an appeal to a community which has not been familiar with hot bread, on the one hand, and which has been affected by the diatribes regarding the alleged demerits of white flour, on the other, can kill two desirable birds with one stone by pushing self-rising flour and winning increased business, through the added consumption which will result.

If self-rising flour is developed all over the country as it has already developed in the South, the milling business ought to profit largely. It goes without saying that the addition of manufacturing processes, requiring labor, materials and other expenses, must necessarily carry corresponding increment, in order for them to be worth the while of the miller; and consequently, by bringing flour nearer the bread stage, he puts himself in a position to enjoy the remuneration to which the service is entitled.

Survey of the Food World

AFTER COLD STORAGE HOUSES.

Aroused by disclosures of conditions in various Detroit cold storage houses made by State Dairy and Food Inspector James W. Helme, two officials of the city health department, Leo Taube and Dr. E. H. Hayward, swooped down on the plant of the Detroit Cold Storage, Ltd., and condemned nearly 4,000 pounds of products stored there.

Armed with sharpened knives, the officials informed Manager C. L. Walk that they had come to inspect the goods stored there. The manager escorted the inspectors to an upper floor and into one of the refrigerators where the temperature is kept at zero.

Barrel after barrel of chickens, veal, beef, butter and eggs were found, all frozen. The officials started the work by cutting small pieces of meat and examining it. Most of the stuff examined was found to be in good condition.

Meat Inspector Taube kept four men busy for half an hour removing barrels of condemned goods. Five barrels of ham which were condemned were being held at the warehouse awaiting a decision of the courts, according to Manager Walk. The ham had been shipped here, refused by the consignee, and a law suit started by the consignors. In the meantime the goods were being held at the plant as evidence. They were declared to be totally unfit to remain in the same refrigerator with meat intended to be sold for food.

Two barrels of geese, three barrels of chicken, about 250 pounds of beef, and five tubs of eggs, to be sold to bakers, it was alleged, were condemned and removed from the building by order of the health officials. This is not quite as much as has been confiscated on former occasions, according to city health officials.

When asked if this raid was the opening of a campaign against local cold storage houses, the officers said it was part of the "routine work" of the department, and that these inspections came frequently.

"We have been making inspections of this kind for a long time. It is nothing new; we confiscate decayed foodstuffs nearly every week," said Meat Inspector Taube.

"I can show monthly reports in which it is shown that we make the rounds of markets, cold storage houses and other places where foodstuffs are kept, and confiscate goods almost every week.

"These spasmodic campaigns started by outside officials are all right and stir up public interest, but they are like a storm —they subside soon and that is the end of them. The only way to keep a line on these places is to keep at them all the time.

Commissioner Helme refused to stifle his investigation into the vile conditions in many of the retail meat markets, sausage factories and slaughter houses when waited on in the Detroit office of the commission in the Majestic building by a committee from the retail meat dealers' association of the city. The retail meat men held a meeting to discuss the crusade and appointed M. Marx and John C. Streit to visit Commissioner Helme.

One of the representatives of the meat dealers, Mr. Marx, who runs six markets in various parts of the city and who was complained of a few days ago by Inspector Raike, of Commissioner Helme's staff, for using sulphite in his sausage, was particularly urgent in his demands that no further newspaper publicity be given to the crusade.

"Keep it out of the newspapers, Mr. Helme. Keep it out of the newspapers," said Marx. "It's all right to make them clean up, but keep it out of the newspapers. It's hard on us dealers who keep clean shops. People are being made so sick that they refuse to eat meat."

"Mr. Marx, our most effective aid in this crusade has been the newspapers," said the commissioner. "Little good could have been accomplished without them. As long as we find vile conditions here we will continue to expose them in the newspapers."

Later Commissioner Helme said he would give every meat dealer whose place has been inspected and found clean a certificate to that effect signed by himself. During the week the retail met dealers' association will call another special meeting to act on this suggestion. The plan is to have a large card red in color similar to a saloon license so it will attract the attention of customers.

"When a dealer gets careless, we will take his card away from him," said Commissioner Helme. "This will give the certificates real value and I think dealers will work hard to retain them."

MARX SAUSAGE DRUGGED.

Mr. Marx was very much exercised over the fact that he had been complained against for the use of sulphite in the sausage exposed for sale in his Cadillac square market. Inspector Raike declared that the sample of the sausage taken from Marx's market, which he had sent to Lansing, was full of sulphite.

Mr. Marx declared that if sulphite was used it was without his knowledge and consent. Mr. Marx said he has been absent from the city for weeks and had only returned last night. Sulphite is a poison and acts as a sort of embalming fluid for the sausage. It also gives it an inviting appearance.

"It is hard to compete against dealers who use dope in their sausage," said Mr. Streit, the other member of the committee from the meat dealers. "It looks so much better than the real thing that many customers prefer it. When they see a real bit of sausage they think something is the matter with it."

DENATURED FOOD PRODUCTS.

As a supplement to our pure food laws a working system whereby much food unfit for human use might be denatured and put to other uses, thus saving a great deal of waste, Dr. Carl L. Alsberg, chief of the Federal Bureau of Chemistry, is working to make denaturing a part of his constructive program. He says:

The Food and Drugs Act and the other Federal regulations do not at present provide for the denaturing of domestic food substances unfit for food which the shipper declares to be designed for use wholly in the arts. For example, eggs unfit for human consumption are frequently shipped with the declaration that they are to be used in tanning leather, a purpose for which such eggs are particularly valuable. Frequently oils or other food substances unfit for human food are shipped with the declaration that they are to be used for soap making, or for the manufacture of lubricants or axle grease. There is, however, no effective guaranty that the recipient of these defective food substances may not work them over and convert them improperly to food use. It is difficult to detect such conversion of this material, as it involves the actual presence of an inspector at the factories of the consignee. To act, the Federal authorities must be able actually to prove that such substances which entered interstate commerce have been converted into food use, which means that inspectors must be present over a long period of manufacture. If the law permitted the denaturing of such food by the addition of a coloring matter or other substance it would make their conversion into food of good appearance impossible without at all lessening their value for use in the arts.

DENATURING IMPORTS.

By an arrangement with the Secretary of the Treasury, the Department of Agriculture has been enabled to issue an order requiring that all imported substances unfit for food which are offered for entry at the several ports of the United States may be refused admission to the country unless they are denatured, so that their conversion into actual food will be made impossible. This is hoped to be an effective check on the practice of some of the importers who have entered substances unfit for human food that were labeled "for technical purposes" and then have used the product for the manufacture of food. In certain cases exception is made where no method of denaturing, without interfering with the value of the product in the arts, has been discovered. In these cases the product must be clearly labeled "not for food or drug purposes" and in addition must contain an accurate description of the product, such as "gelatine containing arsenic" or "wormy nutmeg."

DENATURING PREVENTS WASTE.

There is no question that to prevent all shipment of food products unfit for food but useful in the arts would be to cause a tremendous waste of valuable material. If decomposed eggs could not be sold at all for tanning, the egg shipper would have to add this total loss to the price of food eggs, and the leather manufacturer would be at a serious disadvantage in tanning certain kinds of leather. Similarly, various grains, deteriorated so as to be unfit for human con-

sumption, are still excellent stock food. The addition of a little harmless coloring matter to such grain would prevent its use for human food and not lessen its value as stock feed. On the other hand, by denaturing all domestic products permitted under the same condition as now applied to imported products unfit for human food waste would be avoided, the needs of the workers in the arts fully met and at the same time the public would be protected from the unscrupulous manufacturer who turns these defective substances into a food which looks all right but which probably is dangerous or at least of doubtful nutritive value.

REFRIGERATOR SHOW.

What is declared to be the largest ice box in the world is being installed in Chicago. The cooling plant is being built by the United States Government and is to be one of the features at the International Refrigeration Show, to be held here September 17 to October 1.

"The ice box, if it may be so called, is the largest of its kind in captivity," said an official of the exposition. "It is to cost $10,000 and when completed it will be large enough to house an ordinary two-flat building. And that, as housewives look upon such things, will be some ice box."

The Government will use the cooling plant as a storage place for articles to be exhibited by Uncle Sam at the exposition. There will be on display in the Government's booth fruits, flowers, silk worms, and scores of other things that have undergone the process of refrigeration. In addition to the Government's exhibit there will be displays by institutions of learning and by manufacturers representing practically every civilized country in the world.

Austria-Hungary is sending a delegation of twenty distinguished scientists and business men to the congress. The delegation is headed by the well-known educator, Professor Alois Schwarz of Vienna. The dual monarchy is much interested in the projects to be discussed at the Chicago meeting, and the delegation intends to submit some new and important ideas.

According to the management of the exposition a night is to be set aside for the men who deliver ice and a competition is being mapped out for them. Just what the test will be has not yet been determined. The winner, however, is to be accorded a prize together with the title champion iceman of Chicago.

One of the most promiinent features of the Chicago programme is the convention of the American Meat Packers' Association—the largest users of refrigeration in the world—details concerning which are given elsewhere. The dates of this meeting are September 22, 23 and 24. The American Society of Refrigerating Engineers also meets during the Congress. Both meetings are held as sections of the Congress.

DEFECTIVE PLUMBING.

Food Inspector Hedrick of Evanston, Ill., accompanied by City Plumbing Inspector Henry A. Clauson, made a thorough inspection of all the Evanston stores where food is sold, with especial reference to the sanitary arrangements of their plumbing.

"I was surprised," said Mr. Hedrick, "to find so many violations of the ordinary sanitary precautions against food contamination in the location of the closets for the use of the employes who handle food, their care and the lack of facilities provided for washing after use of the toilet. In a number of stores there appeared to be no requirement that the ordinary precautions be observed, and radical changes will have to be made to comply with the law and do away with the great danger of contamination from this source."

"So far as we have gone," said Mr. Clauson, while the inspection was in progress, "we find the merchants ready to adopt our suggestions and make the plumbing improvements and changes that are recommended. In some cases it entails a very considerable expense, but most of the storekeepers are ready and willing to do the work when we show them the reason for it. In almost every case the violations of sanitary requirements have been through lack of proper facilities provided by the owners of the buildings. Some of the owners are objecting to the expense of our proposed changes, but we do not look for any real trouble in that direction.

"I have seen people handling food," continued Mr. Clauson, "under conditions that were enough to make a sailor seasick, and our present campaign is intended to put a stop to that sort of thing, so far as we can, by insisting on better facilities, and then on their making proper use of them."

In that connection Mr. Clauson called attention to the urgent need of comfort stations here. "It would be an excellent idea," he said, "if, while some of the big stores were making these plumbing changes we have suggested, that they add some public toilet rooms. It could be done at comparatively little expense while the other work is going on, and nothing is needed more in Evanston. Women and children are the greatest sufferers, and it is a shame that they should not be given the facilities which ordinary comfort demands. I understand that long ago an appropriation was made for the purpose of providing proper toilet facilities for the public in the basement of the city hall, and I don't know why the work was never done. The constant use now made by the public of the present insufficient accommodations in the city hall basement is a sufficient indication of their urgent need."

TO PROMOTE CO-OPERATION.

The Secretary of Agriculture has issued an invitation to the State Food, Dairy and Drug Officials to meet in Washington on November 14 or 15, for a conference with the Federal Food, Dairy and Drug officers with a view to promoting co-operation in every possible way between the several states and the Department. At about the same date in Washington will be held meetings of the Association of Agricultural Colleges and Experiment Stations, the Association of Feed Control Officials, and the Association of Official Agricultural Chemists. In this way the State Food, Dairy and Drug officers will be enabled to attend any of the other meetings which hold interest for them.

At the special conference, one of the principal subjects of discussion will be the report of the Committee on Co-operation of the American Association of Food, Dairy and Drug Officials, which was adopted at the meeting in Mobile, Alabama, last June. The hope of those interested in the conference is that this meeting between food and other state officials interested in the enforcement of the food and drug laws, will prove very valuable as a means of promoting mutual helpfulness. No fixed program will be prepared as the purpose is to promote free and full discussion of all questions. The State Commissions have been invited to make suggestions as to matters and topics which ought to come up for consideration.

VINEGAR MAKERS FINED.

The Government has proceeded against several corporations for the adulteration and misbranding of vinegar, and notices of judgment in these suits have just been published by the Department of Agriculture.

Six hundred dollars was the fine imposed on each of the defendants, Benjamin A. Place and Frederick L. Place, Oswego, N. Y., for shipment into Massachusetts of a product labeled "Not Made by a Trust. Place Bros., Cider Vinegar, Extra Old-Farm Orchard Brand, Oswego, N. Y. Test No. 9." The adulteration of this product was alleged because analysis indicated that a mixture of dilute acetic acid and added ash material had been substituted in whole or in part for the pure cider vinegar. Misbranding was charged because of alleged false and deceptive statements on the label which represented to the purchaser that the product was derived from pure cider when it was not.

In a similar case Spielman Bros. Co., a corporation of Chicago, was proceeded against by the Government and fined $100 and costs, respectively, in three separate suits.

Morgan-Abbot-Barker Company, corporation of Louisville, Ky., was fined $25 and costs for sending into Georgia a shipment of alleged contraband vinegar bearing the label, "The Morgan-Abbot-Barker Co., Distrs., Incorporated. Pure Apple Lion Brand Vinegar, Louisville, Kentucky." Adulteration of this product was alleged because it appeared that a substance had been mixed and packed with it so as to reduce and injuriously affect its quality. This substance was a dilute solution of acetic acid containing foreign mineral matter.

The total of these fines amounts to $1,525, with costs included in four of the five cases.

EXTRACT HOUSE FINED.

Notices of judgment obtained against the William A. Webster Company of Memphis, Tenn., for shipment of certain extracts into the State of Mississippi in violation of the Food and Drugs Act are published by the Department of Agriculture.

These shipments included a quantity of lemon extract in which adulteration was alleged for the reason that the extract had been colored with a coal-tar dye concealing inferiority. Misbranding was alleged because the product was

labeled "Pure concentrated Evt. of Lemon," whereas it was an extract of lemon artificially colored with a coal-tar dye.

In the shipments was also a quantity of banana extract labeled "Pure Concentrated Extract of Banana. Adulteration was alleged because analysis showed that an imitation banana flavor, artificially colored, had been used in the product. Misbranding consisted in labeling such a product "Pure Concentrated Extract of Banana."

Misbranding and adulteration were alleged against a quantity of strawberry extract labeled "Pure Concentrated Ext. of Strawberry, the Wm. A. Webster Co., Memphis, Tenn.," and a quantity of pineapple extract labeled "Pure Concentrated Ext. of Pine Apple, the Wm. A. Webster Co., Memphis, Tenn." In both cases the allegation was that an imitation extract artificially colored had been mixed with these products. Misbranding consisted in the labeling of the products as pure concentrated extracts.

The defendant company entered a plea of guilty. The court imposed a fine of $10, with costs amounting to $17.50.

SEIZE FLOUR AND CORN MEAL.

The United States Attorney for the Eastern District of North Carolina recently seized 50 sacks of cornmeal, charging adulteration in violation of the Food and Drugs Act. The meal was sold for and represented to be pure cornmeal suitable and fit for food purposes, whereas, it was alleged to be in a filthy and decomposed condition and unfit and unsuitable for consumption as human food. No claimant appearing for the property, judgment of condemnation and forfeiture was entered.

A shipment of 90 sacks of cornmeal from Tennessee was seized in North Carolina upon the charge of misbranding of the product. All the sacks were guaranteed under the Food and Drugs Act; 50 sacks were labeled, "Steam Ground, 96 pounds 2 bushels. Old Style Meal unbolted"; 25 sacks were labeled, "Bolted 96 pounds two bushels steam ground"; 15 were labeled, "Bolted 96 pounds two bushels steam ground." The sacks were found to contain on an average only 93 pounds, none of them weighed 96 pounds, according to the label, thus making a shortage of about 3 per cent on the entire shipment. The defendant company paid the costs and delivered a good and sufficient bond.

A seizure of 100 sacks of cracked corn, shipped from Virginia into North Carolina was recently made by order of the United States District Court. Misbranding of the product was alleged, each sack being guaranteed to contain 100 pounds, whereas they contained only 98 pounds each. The claimant consented to a decree and a judgment of condemnation and forfeiture was entered.

The Supreme Court of the District of Columbia sustained a verdict of condemnation of 447 sacks of flour shipped there from Indiana and Missouri, by the terms of which the claimants paid the costs and filed a bond of $5,000. The libel set forth that the flour was adulterated within the meaning and intent and in violation of the Food and Drugs Act. Samples of two sacks of the flour, one from each of the two lots, were examined and found to contain worms, insects, and beetles, husks of the worms, and excreta. The appellants contended that some part of the article itself must be filthy, decomposed or putrid, and not that the package contained a substance of that character foreign to its proper ingredients and constituents.

BAD COLD STORAGE FOOD.

More than 100,000 pounds of meat and eggs, which have been in cold storage houses of Philadelphia since 1906, were condemned by agents of the state dairy and food commission, and warrants were issued for the arrest of the dealers responsible for the unfit products. In addition 40,000 pounds of game, which was stored in 1911, was tagged as unfit.

Under the new cold storage act, which went into effect August 14, there is a penalty of $500 or imprisonment, or both, for storing beef more than four months; pork, sheep and lamb, six months; veal, three months, butter and fish, nine months; fowls (drawn), five months; undrawn, ten months.

MISBRANDING OF A MEAT COLOR.

The United States department of agriculture has just issued a notice of judgment obtained against the National Refrigerator & Butchers' Supply Company of Memphis, Tenn., for shipping a quantity of "Ox-Aline Meat Color," which analysis showed to be adulterated and misbranded, into the state of Missouri.

The product in question was labeled "Ox-Aline Meat and Sausage Color. Indispensable to market men and sausage makers. Ox-Aline is a concentrated blood color, of highest quality and purely vegetable. . . . Prepared only by the National Man'f'g & Supply Co."

Adulteration was alleged on the ground that analysis showed that the product contained a coal-tar color known as Ponceau 3 R and boric acid, which is a poisonous and deleterious ingredient. Misbranding was alleged in that analysis showed the product not to be a concentrated blood color and not purely vegetable. Misbranding was further alleged for the reason that the product was labeled so as to mislead and deceive the purchaser into believing that it was a color derived from blood and purely vegetable, whereas it contained approximately 82 per cent of mineral matter.

The defendant company entered a plea of guilty to the information, and the court imposed a fine of $10 and costs amounting to $18.58.

CONCERNING BAKING POWDER.

Dr. Carl L. Alsberg has sent out the following circular:

The Department is gathering information concerning baking powders. For this purpose the Department would very greatly appreciate receiving your replies to the following questions:

1. What type, or types, of baking powder do you manufacture?
2. In the preparation of baking powder, do you add dried egg albumen?
3. In the preparation of baking powder at any time have you added dried egg albumen?
4. How much dried egg albumen is added?
5. For what purpose, or purposes, is dried egg albumen added to baking powder?

The Department would be glad to receive any other comments on this subject that you may care to present.

UNDER FEDERAL SEAL.

Acting in the capacity and under the authority of a federal pure food inspector, Pure Food Commissioner James H. Wallis of Idaho has placed the seal of the federal government on the confiscated canned tomatoes manufactured by the Utah Canning Company of Ogden and shipped to and sold in Idaho for consumption. The consignment totals 1,200 cases, or approximately 16,000 cans. Commissioner Wallis is now assembling the condemned tomatoes in Boise, where a can from each case is being tested by the state chemist, as required under the federal statutes, to determine if any of the canned tomatoes representing the closing run of last year's season are fit for public consumption.

CORN MEAL SPOILAGE.

During the past six months the federal pure food department at Chicago has been working at corn meal with the purpose of devising ways and means to save spoilage. This is a part of the constructive policy of Dr. Carl L. Alsberg, chief of the federal bureau of chemistry. There has been a lot of corn meal spoilage which appears to have been unavoidable. In order to stop this waste Dr. Alsberg has had his chief chemists throughout the country at work, quietly trying to devise means to check this loss for the benefit of the people at large who handle corn meal. So far nothing of a definite nature has been accomplished, but it is expected that in the end something of value will be discovered which may be put to use by those who handle corn meal.

Boise, Idaho, August 19, 1913.

H. B. Meyers, Esq., Editor THE AMERICAN FOOD JOURNAL,
15 S. Market St., Chicago, Ill.

My dear Mr. Meyers: I want to congratulate you upon the magnificent appearance of the JOURNAL containing the official report of our Mobile convention. It really does you credit. Every feature about it is simply splendid. The food commissioners certainly must be under a great debt of gratitude to you for the excellent showing you have made for their interests; while the manufacturers of the country surely cannot help but feel that you have given them more consideration by publishing in full the addresses made there and the valuable discussion which followed affecting their interests, than all the other food journals in the United States combined have done. I have taken great interest in reading most of the JOURNAL and find it to contain a very favorable report of the addresses and discussions that took place there.

Yours very sincerely,

JAMES H. WALLIS,
State Dairy, Food and Sanitary Inspector,
State Sealer of Weights and Measures.

DIRECTORY
OF FOOD CONTROL OFFICIALS

NATIONAL OFFICIALS.

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B. T. Galloway, Assistant Secretary.
A. D. Melvin, Chief Bureau of Animal Industry.
Carl Lucas Alsberg, Chief Bureau of Chemistry.
W. G. Campbell, Chief Food and Drug Inspector.
G. E. Patrick, Chief Dairy Laboratory.
Dr. L. F. Kebler, Chief of Drugs Laboratory.
J. K. Haywood, Chief of Miscellaneous Division.
L. M. Tolman, Chief of Washington Food Inspection Laboratory.
A. L. Sullivan, Chief of Boston Laboratory.
W. L. Dubois, Chief of Buffalo Laboratory.
A. L. Winton, Chief of Chicago Laboratory.
B. R. Hart, Chief of Cincinnati Laboratory.
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H. L. Schulz, Chief of Detroit Laboratory.
F. W. Liebsner, Chief of Kansas City Laboratory.
W. J. McGee, Chief of New Orleans Laboratory.
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ARKANSAS—John H. Page, Commissioner of Mines, Manufacturers and Agriculture, Little Rock.

Dr. C. H. Hoffman, Department Chemist, Little Rock.

CALIFORNIA—M. E. Jaffa, M. S., Director State Food and Drug Laboratory, University of California, Berkeley.

COLORADO—George T. Bradley, State Food Commissioner, Denver.

CONNECTICUT—Hon. Hubert F. Potter, Dairy and Food Commissioner, Hartford.

DELAWARE—A. E. Frantz, M. D., Secretary, State Board of Health, Wilmington.

DISTRICT OF COLUMBIA—William C. Woodward, M. D., Health Officer, Washington, D. C.

FLORIDA—R. E. Rose, Chief Chemist, State Board of Agriculture, Tallahassee.

GEORGIA—R. E. Stallings, Chief Chemist, State Board of Agriculture, Atlanta.

IDAHO—James H. Wallis, State Dairy, Food and Sanitary Inspector, State Sealer of Weights and Measures, Boise.

ILLINOIS—W. Scott Matthews, State Food Commissioner, Chicago.

INDIANA—H. E. Barnard, State Food and Drug Commissioner, Indianapolis.

IOWA—W. B. Barney, State Dairy and Food Commissioner, Des Moines.

KANSAS—S. J. Crumbine, M. D., Secretary State Board of Health and Chief Food and Drug Inspector, Topeka.

E. H. S. Bailey, Ph. D., Chemist State Board of Health, Lawrence.

Julius T. Willard, Chemist, State Board of Health, Manhattan.

KENTUCKY—R. M. Allen, Head of Food and Drug Division, Agricultural Experiment Station, Lexington.

LOUISIANA—Dr. Oscar Dowling, State Food Commissioner, Oil City, New Orleans P. O.

Geo. B. Taylor, State Analyst, New Orleans.

MAINE—Chas. D. Woods, Director, Agricultural Experiment Station, Orono.

MARYLAND—Charles Caspari, Jr., State Food and Drug Commissioner, Baltimore.

MASSACHUSETTS—Herman C. Lythgoe, S. B., Chemist, State Board of Health, Boston.

Mark W. Richardson, M. D., Secretary, State Dairy Bureau, Boston.

MICHIGAN—James W. Helme, State Dairy and Food Commissioner, Lansing.

MINNESOTA—Joel G. Winkjer, State Dairy and Food Commissioner, St. Paul.

MISSISSIPPI—W. F. Hand, State Chemist, Agricultural College, Jackson.

MISSOURI—F. H. Fricke, State Food and Drug Commissioner, St. Louis.

Wm. P. Cutler, M. D., State Dairy Commissioner, Columbia.

MONTANA—F. W. Cogswell, M. D., Executive Officer and Secretary, Helena.

NEBRASKA—Clarence E. Harman, Deputy Food Commissioner, Lincoln.

NEVADA—Sanford C. Dinsmore, B. S., Commissioner in Charge Food Control, Reno.

NEW HAMPSHIRE—Irving A. Watson, M. D., Secretary State Board of Health and Director of Laboratory, Concord.

NEW JERSEY—R. B. Fitz-Randolph, Chief, Division of Food and Drugs and Director of the State Laboratory of Hygiene, Trenton.

NEW YORK—Calvin J. Huson, Commissioner. George L. Flanders, Counsel, Albany.

NORTH CAROLINA—W. M. Allen, Food Division, Human Foods, State Food Chemist, Chief of Division, Raleigh.

NORTH DAKOTA—E. F. Ladd, State Food Commissioner and Chemist, Fargo.

OHIO—Sylvanus E. Strode, State Dairy and Food Commissioner and State Sealer, Columbus.

OKLAHOMA—Dr. J. C. Mahr, Commissioner of Health, Oklahoma City.

U. S. Russell, in Charge of Pure Food and Drugs, State Health Department, Oklahoma City.

OREGON—J. W. Mickle, Dairy and Food Commissioner. Portland.

PENNSYLVANIA—James Foust, State Dairy and Food Commissioner, Harrisburg.

RHODE ISLAND—Frank A. Jackson, Chairman, Pure Food and Drug Commission, Providence.

SOUTH CAROLINA—Robert Wilson, Jr., Chairman, State Board of Health, Charleston.

Francis L. Parker, Chemist.

SOUTH DAKOTA—Guy G. Frary, State Food and Drug Commissioner, Vermillion.

TENNESSEE—Lucius P. Brown, State Pure Food and Drug Inspection Commissioner, Nashville.

TEXAS—J. S. Abbott, Food and Drug Commissioner, Austin.

UTAH—Willard Hansen, State Dairy and Food Commissioner Salt Lake City.

VERMONT—Charles S. Caverly, M. D., President, State Board of Health, Rutland.

B. H. Stone, M. D., Director of Laboratory, Burlington.

VIRGINIA—William D. Saunders, State Dairy and Food Commissioner, Richmond.

WASHINGTON—L. Davies, State Dairy and Food Commissioner, Seattle.

WEST VIRGINIA—John M. Millan, Secretary State Board of Agriculture, Charleston.

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Food Market Review

THERE has been some talk about higher prices for food products because of the damage done to growing crops by the excessive warm weather and drouth that prevailed in many sections of the country. Corn was, of course, greatly damaged in some sections, but in the more northern latitudes there is promise of a good crop. Of course corn will be scarce and high. But the crop is by no means so near a failure as reported. Other cereals furnished such an abundant yield that they will go a long way toward offsetting the shortage in corn. People have been overfrightened about the corn shortage. They see a big jump in the price of beef, pork and other meats because of higher price corn, and they imagine that everything in the way of foodstuffs is going up because the corn crop will be short in some sections. Fortunately there is a lot of old corn in the country. There is an abundance of wheat, oats and forage crops, all of which will help out the corn shortage.

SALT AND CANNED FISH.

Prices for the 1913 pack of salmon are low and are likely to remain so for several months, and then the prediction is made that prices will be advanced as a natural result of demand. Salmon has been growing in favor and at present prices the product is attractive to the thrifty housewife looking for values. Last year's pack has been pretty well cleaned up, and the new pack is likely to go into consumption very fast at present prices.

Mackerel of the better type will be on the market in a few weeks. Those caught last month off the northern coast were poor. The later catch will be better. A good demand for mackerel and other salt fish is expeeted. The market for this class of food product has been very good all summer, and good demand it is expected will continue and good prices will rule.

CEREALS.

Naturally the price of wheat has been affected by the shortage of corn, and while the wheat yield has been very large, it is likely that we are to feel the corn shortage somewhat through wheat prices. Dollar wheat and dollar corn is the popular cry at present among the wheat and corn owners.

CANNED FOODS.

From present indications we are going to see higher prices for canned foods generally. Sweet corn has been good in spots, but generally speaking there will be a shortage of good sweet corn. Peas of the better grade will be scarce and high, while tomatoes will no doubt prove a better crop than has been anticipated. The quality of tomatoes going into the can is very good, not only because of the good quality of the yield but for the further reason that packers are generally observing the law which requires sound tomatoes for packing, without the addition of water.

WARNING TO PRUNE MEN.

The Dried Fruit Association of California has sent out the following letter to the prune growers and packers of California:

In view of the number of damaged prunes that are now dropping from the trees owing to the extremely hot weather in the prune districts, the attention of all orchardists is earnestly called to the necessity for using the greatest care to avoid intentionally or unintentionally permitting any of these worthless prunes being added to or combined with their sound stock. These prunes are absolutely valueless as a food product and should be either used as hog feed or, if sold, should be sold to distilleries. If dried and sold as prunes every pound that is shipped will be a direct injury now and for the future to the reputation of California.

Only a few years ago the prune orchardists were in a "slough of despond" and could not sell their product for actual cost. Every effort is now being made (with evident success), to place the industry on its proper basis as the result of increased consumption in this country. There can only be one result if these "burnt prunes" fall into the hands of consumers—disgust and disuse.

This appeal is issued on information that some growers are now proceeding to dry this "trash" and in view of market conditions make an effort to include it in their sound stock. We desire not only to warn growers and packers against such action, but also appeal to their loyalty to the state and its best interests to refrain from any attempt at so doing.

The members of this association have been notified that official inspectors will not pass shipments, and the association will decline to issue quality certificates on shipments containing any of this worthless stock.

QUIT COLORING TEA.

As the result of the Treasury Department's vigorous campaign against impure teas and the rigid inspection of all importations, the government's supervising tea examiner declared that tea now reaching the United States was free of coloring matter. Japanese teas now arriving meet the stringent standards adopted by the government, and the Chinese teas which will make their appearance within a few weeks are expected to be equally as pure.

At the instigation of the United States, China this year has taken unusually vigorous steps to send pure tea to this country. Secretary Bryan, at the request of Secretary McAdoo, instructed American consular officers to inform tea brokers in China that the United States has adopted tea standards this year of higher purity than ever before. The governor of Shaushing Province, which includes the P'Ing Sui district, where green tea is grown, issued a proclamation forbidding the coloration of tea and warning that violations of the order would be followed by the burning of tea and the imposition of penalties.

The tea guild of the province promptly followed with a similar announcement to the Chinese tea stores and growers calling attention to the folly of coloring their tea as "the foreigner's method of testing is very clever and he does not fail to detect the slightest particle of coloring matter."

"We respectfully urge each tea grower," said the guild's proclamation, "to have his tea absolutely clean and pure this year. We must not follow in the old rut any more. We hope that all will mutually war on one another in order to protect our local products and insure our profits. We respectfully urge every grower not to be penny wise and pound foolish."

CORN AND ITS USES.

Under the title of corn and its uses the American Manufacturers' Association is sending out a neat pamphlet for the use of colleges, domestie science and normal schools. The little booklet is prepared by recognized authorities and edited by experienced teachers. The story of corn is, of course, in condensed form, including five lessons. For those who are studying biology or domestic science it is of particular value. Indeed almost any class above the lower grades might study this little work with profit.

Process of the manufacture of corn products is another booklet being distributed in nine states of the corn belt of the country.

This booklet carries a wonderful amount of information in a small space, showing the vast amount of uses to which corn is put at the present day. During the past year 50,000,000 bushels of corn were used in the manufacture of starch, corn syrup and sugar. The eorn exported amounted to 83,000,000 bushels. Of the corn sold from the farm 15 per cent is used by the starch and syrup factories. This shows how enormously this industry has been developed, and indicates the growing importance of our corn crop apart from its use as a stock food.

LARD COMPOUND.

Charged with selling a substitute for lard without labeling it as a substitute, John Leff, who conducts a grocery store at 339 Monroe avenue, Grand Rapids, was arrested by Special Officer Jesse Hammond.

When arraigned in police court Leff admitted his guilt, but because the police court does not have final jurisdiction in the case, he waived examination and was held to the present term of the superior court for trial under a $200 bond.

Leff was arrested on the complaint of Officer William J. Mickels, who purchased the so-called lard. He sent it to Lansing where it was tested and no hog fat was found in it. The substance he sold for lard is known as lard compound.

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Price Maintenace and the Consumer

"YES'M, I asked 'im, an' 'e says 'e 'asn't got it no more, mum."

Mrs. Jones was furious. The maid beat a hasty but respectful retreat to the kitchen.

"I'll call up that groceryman myself," said Mrs. Jones with portentous emphasis, and she stepped quickly to the phone.

"Brown 7320. Hello! Is this Smith's grocery? Mr. Smith, please. Hello, Mr. Smith; this is Mrs. Jones. I ordered, among other things, this morning two packages of Robinson's Breakfast Food and didn't get them. I want to know why?"

A moment's pause.

"You don't carry it! Why that's very funny, Mr. Smith. I have bought it from you myself hundreds of times, and anyway I can't see how an up-to-date grocer like you could afford not to carry anything so well known as Robinson's Breakfast Food"

Another pause.

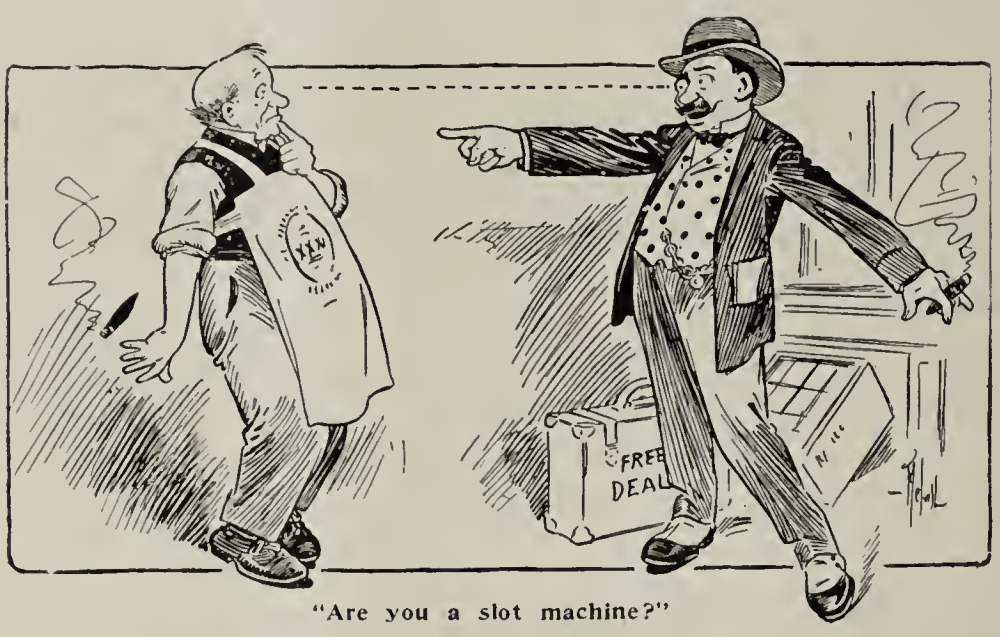
"Well, I know I haven't bought it from you lately. You could scarcely expect me to be paying you ten cents a package for it when I could buy it down at the Emporium at three for a quarter. But I got it from you about a month ago, I am sure."

"Well, Mrs. Jones," Smith replies over the phone, "if you can get it from the Emporium at three for a quarter why don't you order it from them instead of from me? It would be to your advantage, I am sure."

Mrs. Jones finds herself in a flutter of confusion at this question but replies as steadily as she can, "Why, I did order it from the Emporium, Mr. Smith, and they couldn't fill my order. Didn't have it, I think they said, and anyway I thought you would certainly have it, and you know how particular Mr. Jones is about his breakfast food. Nothing else will do and I just must have Robinson's in the house. Can't you get it for me, Mr. Smith?"

"I will send out and get it for you if I can, Mrs. Jones," the grocer replies, "but I am not carrying it myself and do not expect to. I am afraid the Emporium has killed the market for Robinson's Breakfast Food. You see they have been making an advertised leader of it, selling it at less than cost. They can afford to do that, perhaps, because when they get people in their store they can sell them something else at a long profit and make up the loss; but I can't afford to carry any goods that I can't make a profit on. People won't pay me ten cents for an article when they can get it elsewhere for three for a quarter, so I have simply thrown it out."

"Very well, Mr. Smith; good-bye," said Mrs. Jones, hanging up the receiver with a slam, and Smith at the other end of the line scratches his head thoughtfully and remarks: "There you go again, Sam! The Emporium has quit handling Robinson's Breakfast Food and here is Mrs. Jones calling me up as mad as a wet hen because I haven't got it, and I suppose she would be madder still if I had it and charged ten cents for it. She loses her temper, we lose a customer and the manufacturer loses the business of this town; for the goods were given such a black eye by the Emporium advertising that no grocer will carry them, and all because that blinkety-blanked price-cutter has used them to bamboozle people into thinking that everything in his store was sold as cheap as this stuff that he deliberately set out to lose money on. After all I guess old P. T. Barnum was right—'the public does like to be humbugged.'"



"Are you a slot machine?"

Meanwhile Mrs. Jones at her home is indulging in a monologue regarding the wooden-headedness of grocers in general and of Smith in particular.

The purpose of this article is to discuss price maintenance in its relation to the consumer. You wouldn't have thought it from the way we have started this article, and that is the reason we have started it this way. Price maintenance is a subject in which every consumer—and we are all consumers, whatever else we may be—is or ought to be vitally interested; yet as a subject or a title, nothing could sound less interesting. The average consumer doesn't know anything about price maintenance. She wouldn't know a maintained price if she met it on the street with a flag in its hand. The terms "fixed prices," "price maintenance," "protected prices," or "protected values" mean just about as much to her as the Latin names for flowers or the titles of the Russian sonnets. So we will not worry the gentle reader of these fair pages with definitions of these terms and interpretations of their meaning. We will leave all that to the lawyers and the courts—and wish them good luck.

So now let us get back to Mrs. Jones and her grocer, whom we have gotten into a bad mess, and if we can manage to extricate them from it we will have answered in the very simplest way that stupendous question of "price maintenance and its relation to the consumer."

Now Mr. Jones, as you can imagine from Mrs. Jones' remarks, was particularly fond of Robinson's Breakfast Food. In fact, he was convinced that it was the only stuff made that was fit to eat for breakfast, and therefore one of Mrs. Jones' obligations as a dutiful wife was to see that it was promptly and regularly supplied, and another of Mrs. Jones' duties, as she conceived them, was to secure it at the lowest possible price. So after she had been buying it from Smith, the grocer, for ten cents a package for a number of months she finally saw it advertised by the Poseyville Emporium, a downtown department store, at three for a quarter, and she promptly laid in a dozen packages from the Emporium, thereby saving, as she supposed, 20 cents.

Incidentally she bought from the Emporium five yards of washable silk that wouldn't wash, a dozen cans of assorted fruit, Sunrise brand, and $3.39 worth of toilet articles on which another special sale sign had been displayed. Perhaps you think this has nothing to do with the story, but it has everything to do with it. For on the washable silk, the Sunrise fruit, and the toilet articles the Emporium made that day an average profit of forty per cent, while on the Robinson's Breakfast Food it lost about seven per cent, considering the cost of doing business, and it cheerfully charged the loss up to advertising, which was cheap at the price.

So the reason that the Poseyville Emporium had for cutting the price on Robinson's Breakfast Food is perfectly plain. It was advertising, and advertising of a character that department stores and cut-price dealers very frequently indulge in. There are those who believe that such advertising is akin to horse stealing, disreputable and immoral, but we cannot quite agree with them. It may be dishonest but it is not yet immoral. Nothing is immoral until society frowns down upon it and casts it out, and the public still hunts bargains, flocks to sales and makes it profitable for price cutters to advertise goods at less than cost.

Now when the cut-price advertising of Robinson's Breakfast Food had served its purpose the Emporium of course discontinued handling the goods, as there was no earthly reason for continuing to lose money, and after advertising it widely at three for a quarter and bulldozing the community into the belief that the rest of the merchants who were charging ten cents a package were first cousins to highway robbers, it would scarcely be a becoming thing for the Emporium to carry the goods in

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You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts—and gives 168 receipes for all kinds of dishes.

National Starch Company
NEW YORK

stock at the regular price, ten cents a package. But in the meantime the patrons of Robinson's Breakfast Food had flocked to the Emporium to buy their goods. Grocerymen cannot afford to have their money tied up in goods on the shelves which do not sell, so they promptly unloaded their stock of Robinson's Breakfast Food at three for a quarter—the Emorium's price—and quit handling it.

Then, as we know, Mrs. Jones got into a huff at Smith, the grocer, and lost a really good groceryman. Smith, the grocer, lost a really good customer, and the Robinson Food Company lost a really good business in a really good town and was never able thereafter to build it up again.

Who's to blame?

Can you blame the price cutter for doing what everybody else before him had done—taking a well advertised article and advertising it at less than cost to draw trade? In all probability he never thought of the effect on Robinson's Breakfast Food nor upon the manufacturer's business, and if he had he would have concluded that it was their funeral and not his—as indeed it was.

Could you blame Mrs. Jones for going up in the air and saying harsh things about her grocer? Scarcely, for that is the thing that all of us would have done under similar circumstances.

And could you blame the grocer for refusing to handle goods which would cost him money every time he handed a package over the counter at the cut price or which would injure his reputation if he attempted to sell them at the regular price and secure a profit?

Or do you blame the manufacturer?

Would you, as a possible ultimate consumer of Robinson's Breakfast Food, have been perfectly satisfied if the manufacturer, the Robinson Food Company, had elected to prevent all of this trouble—the vexation of the consumers of Robinson's Food upon being unable to secure it any longer, the breaking up of the friendly relations between Mrs. Jones and her groceryman, to say nothing of the loss of their perfectly good business in this particular town—by fixing things so that no merchant could have secured more nor less than a fair price for the goods? If you think that would have been a perfectly fair and legitimate thing then you are *for* price maintenance, for that's what price maintenance is.

Of course Mrs. Jones, or Mrs. Jones' husband, can switch to some other breakfast food on which the price has not yet been cut, but the unfortunate thing is that Mr. Jones really wants Robinson's and feels, as a freeborn American citizen, he ought to be entitled to it, and now that he cannot get it in town, he orders it from the mail order house in Chicago and stigmatizes his native heath as a one-horse jumping off place.

And so to the grievances above catalogued may be added the destruction of Mr. Jones' civic pride.

Of course Mr. Jones may outgrow his passion for Robinson's Breakfast Food, Mrs. Jones may even make up with Smith, the grocer, and the Robinson Food Company may secure business somewhere else to offset what they have lost in Poseyville. But tomorrow the same thing will happen with something else. The Emporium will make an advertised leader of Beechnut Grape Juice or Welch's Bacon, and what is going on in Poseyville will happen in a larger or smaller scale all over the rest of the country.

And now the question is, Do you blame the manufacturer for wanting to prevent all this. Aside from his own profits and the protection of his own business, which, while it is mighty important to him, is not so important to the rest of the world, is it not in the interests of common humanity as well as in the interests of the pocketbook of the ultimate consumer that the manufacturer, by fixing the price and keeping at one fair level throughout the country, should prevent all this unhappy series of events?

And on the other hand, why should the government protect the proprietors of the Emporium by refusing to permit the manufacturer to establish the one-price system on his goods? The government is of the people, by the people and for the people. Is it to the best interests of the government, and of the ultimate consumer, whom the government represents, to see that Isaacstein is permitted to sell the manufacturer's goods below cost as a means of deceiving the public as to the prices of other less well known goods on which he secures an exorbitant profit? There are more Smiths than "Emporiums" in this country, thank heaven—there are more honest merchants trying to make an honest living at honest prices than there are price cutters bamboozling the public with cut-price sales on advertised, trade-marked articles. The interests of the honest merchant, the honest consumer and the honest manufacturer are identical, and they are all arrayed against those of the price cutter.

THE HIGH COST OF SERVICE.

By O. B. McGlasson.

The high cost of foods is almost entirely due to the high cost of serving the consumer. The farmer, the wholesale or retail grocer does not get as much out of the game as they did twenty-five or fifty years ago. The net result to all parties interested in the manufacturing, assembling and delivering of the necessities of life is not what it was twenty-five or fifty years ago.

Why?

Well , My Lady of the house demands expensive service. The retail grocer must have, to please her and secure her trade, costly fixtures, up-to-date electric coffee mills, electric meat cutters, electric grinders, motor cars for delivery, and the delivery service must be just so, or she is greatly peeved.

The consumer wants the most expensive labels on cans, bottles and cartons. There is a greater demand for package goods each year, and this all means that the consumer pays more money for good things to eat.

My Lady calls over the 'phone and requests a few items of groceries. They are delivered promptly. An hour or two later the maid informs her that she has neglected to order a loaf of bread. She promptly orders the retail grocer to deliver that loaf of bread at once. Then in the afternoon the maid discovers that she has no vegetable for dinner, and the phone is used again, and an order for a quart of peas or a head of lettuce is given, and the retail grocer makes another trip.

What wasted energy! Simply because the lady ordering does not do things in a businesslike way. She should at least have taken the time to write down a list of the groceries needed for the day, and made one delivery do.

If foods are from one-quarter to one-third higher than a few years ago it is due to the bad management of the housekeeper. She uses the telephone too much. That useful contrivance alone has increased the cost of living in the house where it is used at least ten per cent.

The old-fashioned way of running the home is the best. It is considered a great encroachment upon the dignity of the average city lady to bring home a package, and this also applies to many husbands. The era of package carrying has passed and "all packages must be delivered at the back door."

My Lady nowadays wants to be known as My Lady of the Ballot Box, and if she is as extravagant in looking after affairs political as she is the affairs of the house, I fear there will not be much improvement in governmental affairs. And then if the home is neglected for political clubs, and servants permitted to run the house, the cost of foods will continue to soar.

If the wife would give more time and attention and personal supervision to the purchase of things for the table, she could easily cut down her meat and grocery bills from fifteen to twenty per cent.

The way to have a thing done right is to do it yourself, and do it in a systematic and businesslike way. Let the wife give more time and study of how to run her home as a business, and see what a change she will get in results.

If a business was conducted on the same basis as the average wife runs her home it would be in the bankruptcy courts within a very short time. Let the wife study economy of the home, and have less to do with political economy.

Do not think I am crying against the equal suffrage of women. I would give all rights that a man has to woman, but I do not favor anything that will lessen the efficiency of woman as queen of the home. All honor to woman, and may she ever remain a queen in the homes of the entire world. But if she is going to run the home, anything that will aid or assist her in running it as a business, and thereby be a real partner wtih her husband in helping him save a little money for a rainy day, or to be used to purchase the comforts of old age, should be encouraged. If the wife would take an hour each day personally superintending and inspecting the buying of foods, and not leave that important duty to servants she would soon save quite a nice little sum of money.

Why not try out this plan in the home for a month or so, and note the results?



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Those who buy lemonade at the West Michigan state fair will get lemonade and not a mysterious mixture of acids, sugar and cold water. Those who prefer cider will get the real stuff and not a little apple juice and a lot of water. And the hamburg steak will be real hamburg and there will be no fake about the red hots.

The state dairy and food commission is taking an active interest in the fairs this season and in the enforcement of the pure food laws in the drinkables and eatables served at them. William J. Mickle, one of the department inspectors, will attend the fair at Comstock park next week and his activities will be to make those who sell stuff on the grounds sell it for exactly what it is. If the vendor wants to sell lemonade made of citric acid with a small piece of lemon floating around in the tub he can do so provided he labels and barks accordingly and does not try to pass the concoction off as lemonade. With Mr. Mickle on guard the hamburg must be without boric acid or preservative sulphites and the red hots must be something else than breakfast food with the skin on. This is the first time the department ever has taken cognizance of what has been sold at the fairs and similar functions. The West Michigan management heartily indorses what it is proposed to do this time and will give every assistance to the enforcement of the laws. One of the features of the fair will be two good-health cars sent out by the state for the education of the people in matters of sanitation and health precautions. The cars will be placed just south of the west entrance and easily accessible. A chemist accompanies the train and he will be available at any time when a question arises as to the character of food or drinks offered for sale on the grounds.

COLD BEER PLEA EFFECTIVE.

A beer case was tried recently in Muskogee, Okla., wherein a druggist was charged with having one hundred pints of beer in his possession for selling purposes. The jurors were sweltering in the hot court room, where the thermometer registered 106, when the attorney for the defense delivered his address. He said:

"Johnson had that beer for his own use and not to sell. Gentlemen, I'll leave it up to you. If you had one hundred pint bottles of foamy beer stored away in your ice box, and the weather was hot, wouldn't you resent it if an officer confiscated it and placed you under arrest? Gentlemen, this man was imposed upon. It is not against the law to have beer in your possession for your own use. It is not a crime to pry off a cork, pour it into a glass, watch the bubbling and see the foam arise, and drink it while it is ice cold."

The sweltering jury, with burning stomachs, walked into the jury room, took one ballot of "not guilty," turned around and walked right out again. After the verdict was read the court suggested that no more cold beer cases be tried in hot weather.

OLD LAW REVIVED.

After being on the statute books for many, many years, the law requiring eggs to be pure is at last to be enforced. Until now it has been a dead letter, no one having given it any attention. The delayed work of enforcement has been taken up by State Dairy and Food Commissioner Strode, who promises trouble to dealers in bad eggs.

No more will the housewife be compelled to pay for a dozen eggs to get three or four that are fit for using. The inspectors are to be on the job all the time, with full authority to test any egg offered for sale. They will be equipped with testers which will detect any tainted product.

Mr. Strode has given all dealers ample warning, but he anticipates that for a few weeks there will be a flood of prosecutions. After one good lesson has been administered he does not believe there will be any further trouble.

ANOTHER "BABY KILLER."

The department of agriculture has added one more patent medicine to its list of "baby killers." It is "Russell's White Drops," manufactured by the Russell Medical Company of Providence, R. I.

Following a seizure of a shipment of the preparation the department issued this statement:

"The charge against these goods is that the label stated that the product was a safe and effectual remedy for babies and children teething, when in fact it was not an effectual remedy for such condition, and the quantities of codein and alcohol present rendered it entirely unsafe for use by infants."

SHORT MEASUREMENTS.

A shortage of 10.6 per cent of the volume it was represented to contain brought the allegation of misbranding against a shipment of Durkee's lemon extract, according to a notice of judgment just issued by the department of agriculture.

The product was shipped from New York into Texas by Eugene W. Durkee and James M. French, doing business under the firm name of E. R. Durkee & Co., New York, N. Y. The label stated that each bottle contained 1½ fluid ounces net, whereas in fact the quantity was less by measure to the amount of 10.6 per cent.

A vanilla extra manufactured by the same firm bore a label stating that it contained 1½ fluid ounces net, and was also adjudged misbranded because measurements showed the average contents of four dozen bottles to be 4 per cent short measure.

Misbranding was likewise alleged of "Durkee's Salad Dressing and Meat Sauce" because of short measure.

The defendants having entered pleas of guilty, the court imposed fines amounting to $150, and suspended sentence upon the charge that the salad dressing and meat sauce was misbranded in that the contents of the package thereof were not correctly stated in terms of weight and measure.

JAPANESE CRAB MEAT.

In order to standardize the pack of Japanese crab meat the packers in Japan have formed an association and induced the government to take steps toward regulating the crab packing industry. The rules that have been prescribed by the government are as follows: Crabs shall be killed immediately after being caught; they shall not be exposed to the sun; they shall be boiled and packed the same day; the meat shall be thoroughly cleaned and packed in parchment paper before being packed. The use of soldered cans and of chemical flux in soldering are discouraged. The government has issued directions as to how cans shall be sealed, the length of time the meat shall be cooked and the different methods to be employed in cooking it. As a result of the government regulations the quality of the canned crab meat sold should be improved. The demand for the meat is estimated to exceed the supply by 20,000 cases annually.

CONTROL OF NARCOTICS.

At the session of the National Association of Retail Druggists' convention held at Cincinnati, Ohio, the members went on record as favoring a federal law controlling the selling of narcotics and poisons. The druggists claim that dispensing physicians are allowed to sell narcotics and poisons without any legal restraint and claim that this is a source of great harm.

The law which they favored would confine the sale of these drugs to regular pharmacists and they could sell them only on a physician's prescription, each sale requiring a new prescription. The druggists also passed resolutions condemning the sale in drug stores of alcoholic beverages.

BENZOATE OF SODA.

Florida has ruled in favor of benzoate of soda in the following terms:

It having been determined that benzoate of soda mixed with food is not deleterious or poisonous and is not injurious to health, no objection will be raised under the food and drugs act to the use in food of benzoate of soda, provided that each container or package of such food is plainly labeled to show the presence and amount of benzoate of soda.

IMITATION GRAPE JUICE SEIZED.

One keg of Grapine, shipped by the Wm. A. Beatty Company, Los Angeles, Cal., was seized in the District of Columbia on the charge that it was misbranded. Misbranding was alleged to result from the fact that the article contained little or no grape material, but consisted of a product artificially colored and flavored in imitation of concentrated grape syrup. The case has not been decided, but will be brought to trial at an early date.

The Department of Agriculture announced August 14 the result of a prosecution of the Francis Cropper Company of Chicago for adulteration and misbranding of orangeade. The company consented to a decree of condemnation and forfeiture of a shipment of the product, but was allowed to retain it under a $50 bond to obey the law.

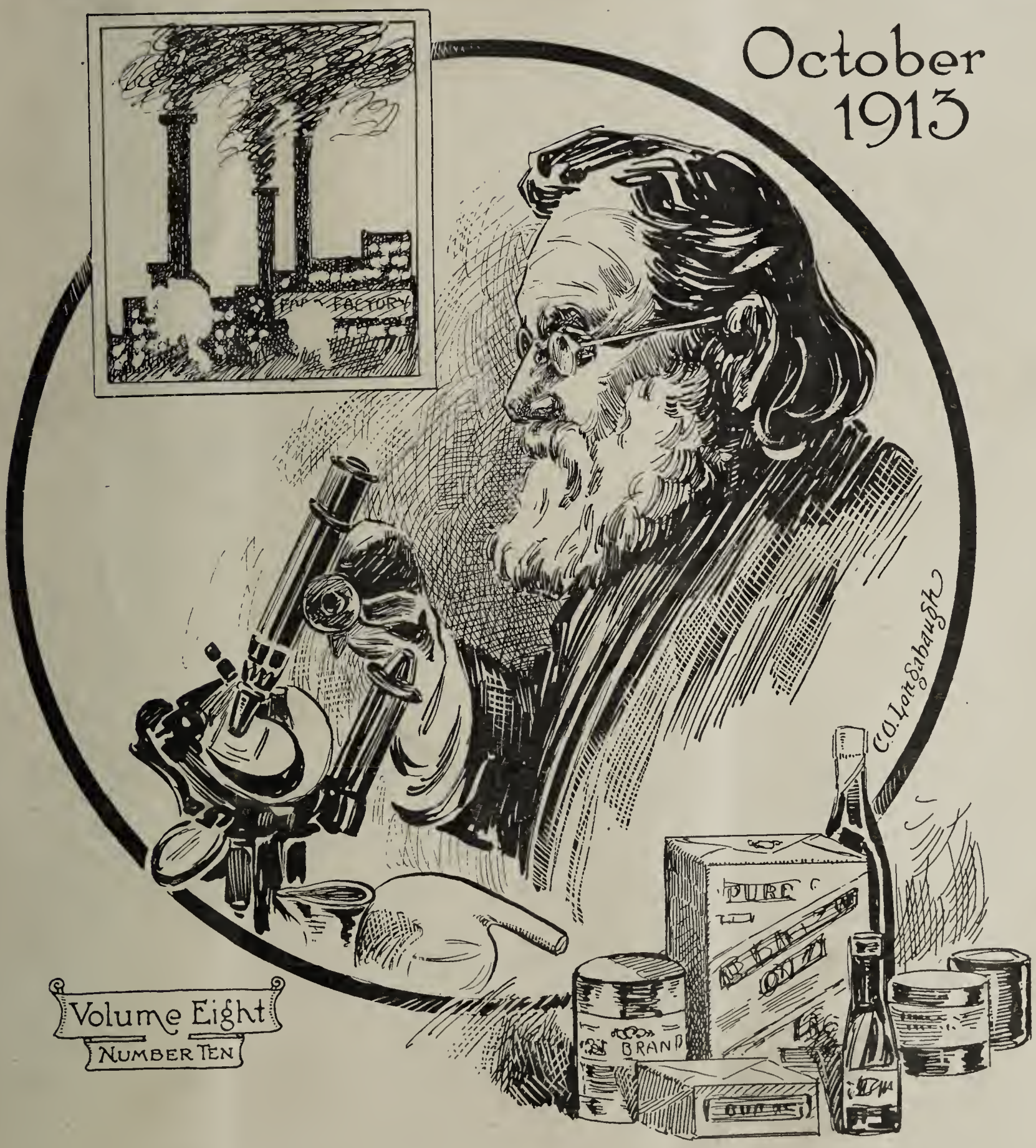
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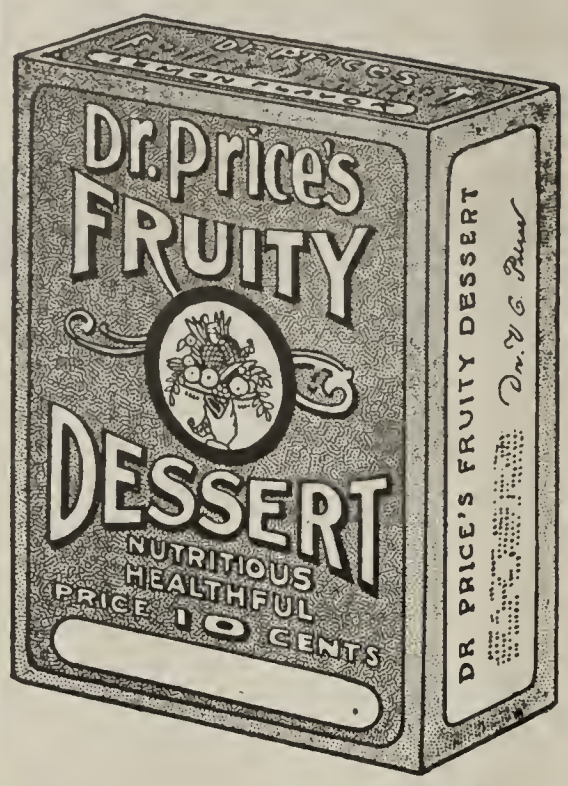
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Volume Eight
NUMBER TEN

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Constructive Food Work For All

SINCE the beginning of the pure food movement there has not been such a commendable desire shown for constructive and coöperative work as is found to pervade this field at the present time. The great majority of state food officials are making a serious effort to harmonize their laws and rulings so that they will more nearly conform to the Federal laws and rulings.

We have always had a few state officials who have not been content with laws and rulings that were like those of other states. These officials wanted to be different; they loved to be in the limelight, and they had a special fondness for the big type used in the daily press to characterize their dramatic activities. And they were not altogether to blame for this, since the head and front of the Federal department set them the bad example. Now that we have a level-headed, sincere man at the head of the Washington department, the dramatic food official has become taboo. The business men of the country have long regarded these over-officious men as something more than a national nuisance, and the better class of food officials have come to frown upon their hypercritical views.

No one who is seriously interested in pure food objects to a reasonable enforcement of a reasonable law. But what all right thinking men dislike is that food officials shall create unwarranted disturbances in the business world for the purpose of promoting their own personal interests. These disturbers in their desire for leadership do not appear to stop to consider that they have no one to lead, and so they cut a sorry figure as generals of an army that does not exist. Yet ,single-handed, these men can create a lot of trouble for everyone interested in pure food. They are mere disturbers who dislike to work in harmony with their fellows.

Now that we have a sincere and undramatic leader in Washington, the state officials are feeling a new influence. Dr. Alsberg believes in harmony and coöperation, and is making this fact generally known. He is doing it in a quiet but impressive way. In fact, he has already made such an impression that his work for uniform methods is bearing fruit. What Dr. Alsberg is properly trying to impress on all food officials is that Federal and state governments should concern themselves with more constructive work for the common good, and that so far as it is possible to make it so, our states and the Federal department should labor in the cause of pure food as a single entity, and not like a lot of little individual principalities.

State food officials who are disposed to be hypercritical can find plenty of things to do that have heretofore been left undone, and these things will attract attention. But it were better in many cases that these things be left undone, for if each state food official shall strive for new laws we will have a mess of rules and regulations to contend with that would disturb our whole system of food control, to say nothing of the harm that it would work to the business interests of the country.

But there is no fear of this now. The day for dramatic work among state food officials has past. The tendency is toward more and more coöperation that will ultimately result in a greater degree of uniformity of food laws.

Under our political system, state control as distinguished from Federal control, is a necessity. Local conditions demand very often local treatment. But where it is possible to do so the operation of the food laws should be uniform, and by the method of coöperation so strongly urged by Dr. Alsberg this much-desired result may be brought about.

Any time a state food official thinks he has a good thing that should be promoted, let him first try to interest other state officials. Should they refuse to adopt his rule it were better to conclude that it is not desirable to put his rule in force.

TAKING HEED OF WOMEN'S NEEDS.

SINCE women have been given the ballot in many parts of the United States some of our far-seeing officials have wisely concluded that the country owes them a special service which has heretofore not been given consideration, and these shrewd officials are not only trying to do things that have a peculiar interest for women, but they are casting about to learn if perchance there is not some favor they can do for women that they have overlooked.

This is as it should be. There is no better politics than good service. If the powers that be will interest themselves in the things of peculiar interest to women they will deserve the good will of women, which means that they will get the lion's share of women's ballots on election day.

Secretary Houston of the Department of Agriculture is to be congratulated for his use of good judgment in recognizing the women of the country as a very important part of our government. Women, or many of them, are now sovereign citizens with the right to a voice in the management of the country's affairs. It is well, therefore, to ask what they want.

Secretary Houston's letter has been sent to about 50,000 farm households requesting information as to how the Department of Agriculture can best serve the needs of the farm women. With each of these letters there is enclosed a return envelope, in which the women can forward their replies.

The secretary's letter advises the women to discuss the matter in their various organizations and get, if possible, the combined opinions of their entire community. The answers, which are to be sent not later than November 15, it is expected, will represent the views and opinions of about a half million farm women. These answers will be considered by the specialists of the department having to do with that branch of agricultural activity.

This is indeed a good service and should make a lot of good will for the administration among the farm women of the country. Another wise officer might take a cue from Secretary Houston and do something for the city woman. She is an equally important factor in the affairs of the country with the country woman, and will respond freely to an effort to gain her good will.

Governor Dunne of Illinois has an opportunity to increase his stock of women's good will by doing something for the welfare of the children of his state, a matter in which women are peculiarly interested. Everywhere the cry is going up for better milk. The state is flooded with milk from tubercular cows, and the mothers are helpless to remedy the evil. Governor Dunne can do much for the suffering children of Illinois and receive for his service the good will of the women of the state. The right-thinking men, too, would appreciate the service he can render by getting rid of our tubercular cattle.

It is doubtful whether or not our lawmakers and other public officials quite appreciate the importance of the new woman in politics. She is going to use her franchise just about as she pleases, and the chances are that she is going to support administrators and law makers who rise to some of her cherished ideals. The women are not satisfied with present conditions. Some things they want changed. And then some things that have been left undone they desire to have done. It were well, therefore, to consider the needs of the new woman.

DON'T WORRY ABOUT CALVES.

WE LIKE to worry, most of us, and indeed it may be said that a lot of people get a very uncomfortable feeling when they have nothing to worry about. To be sure, some one must worry about the things that are wrong, else they would not be righted. So that, after all, it is well that some people are willing to worry themselves and those about them, for the ultimate good.

Just now a lot of people are greatly worried about the number of calves that are killed every year. These well-meaning people have been worrying over the disappearance of our calf stock for a long time, for they are certain that to kill off the calves means less mature beef stock in the future. So far their reasoning is sound.

But so long as the farmer has no room for his surplus calves, what is he to do with them except to kill them?

The farmer, like the rest of us, looks upon his affairs with a commercial eye, and doesn't think of raising calves for the sake of sentiment. Of course, many good people who know little or nothing about farming as a business are able to show that a dozen calves saved would make in the course of a little time a dozen carcasses of beef, and further it could be shown that we need the beef badly today and will need beef worse in the years to come. To all of which the farmer will subscribe, with the added thought that he has no room on his farm for these particular calves. He might even venture to suggest that his worrying friends take the calves off his hands and grow them into beef.

The dairy man can afford to raise only his best calves, because milk and butter are high and he needs his hay fields and pasture land for the purpose of producing milk and butter.

Put in the briefest space, it does not pay to raise calves on land worth from one hundred to two hundred dollars an acre. It is a plain business problem and it will be solved tomorrow as it is being solved today by the simple process of killing the calves. So don't worry about it.

Some years ago our prairies were a big pasture, practically free to those who had calves they desired to grow into beef. Calves were of good value to them, and they were carefully preserved. Given a calf, the rest was easy. The calf grew into a fine piece of beef at small cost.

It's different today. The farmer cannot afford to raise calves, so he kills them.

We will raise some calves in the future for those who can afford to pay the future price for beef, and this price will regulate the calf killing. So don't worry.

We like to think we can do things by legislation that defy the natural laws, and so many people would legislate a larger life to the calf. Others propose a campaign of education for the farmer. They purpose to show him that by raising more beef he can make more money to buy more automobiles with. When he has been shown by the professors and other city folk the wisdom of raising more beef there will be more calves in the pasture.

Somehow the man who has been running a high price farm for the better part of a life time has some pretty good notions of his own as to the best means of getting a good dividend on his investment.

Money and energy expended in trying to induce the farmer to raise an unprofitable crop may be figured out as so much lost motion.

LOW SCORES IN HIGH PLACES.

SOMEHOW the public has taken it for granted that the last place where a low degree of sanitation would exist would be in those institutions presided over by public officials. It seems, however, that the public has made a poor reckoning, for it now appears that the police stations in our larger cities are not fit habitations for anything but bugs and other species of vermin.

Our police officials, with their contempt for law-breakers, may reason that any place is good enough for professional rogues. But that is not the point. We do not want our undesirable to be infected, because they spread this infection among well-disposed people. Instead of dumping criminals into filthy cells, it were better to stand them up in a clean place and turn the hose on them. However much the hardened copper may want to punish the habitual criminal, he should not mete out this punishment in a way to inflict the innocent.

The bad man should be physically cleansed and be given wholesome food to eat, no matter how simple it might be. If he cannot be purged of his spiritual offense, he can and should be physically cleansed before he leaves the jail to rub up against innocent people.

Down on Ellis Island, where the emigrant is held, they maintain a habitation unfit for animals, so it is said. The emigrant, after his voyage, should at least be set down in our country with a clean skin, and not be held at a filthy place like Ellis Island, and fed on rank food. There is plenty of water about this landing place for emigrants, and officials should be taught to use it freely.

There is no use to clean up in our big cities and then spread filth the unfortunates gather in our jails and other public institutions. These, above all places, ought to be kept free from filth.

As for that very large group of farmers who will have a good yield of corn they will reap an extra benefit because of the shortage in other localities than their own.

BAKING POWDER TESTS.

ELSEWHERE in this issue will be found an exhaustive story on baking powder, involving a series of experiments that Food Commissioner James H. Wallis caused to be made for the purpose of measuring the value of egg albumen in baking powder.

This is the first authentic story presented to the pure food world on this subject. Much has been said for and against the practice of using egg albumen in baking powder, but until Commissioner Wallis made his experiments there was little but individual opinion upon which to predicate a judgment. Now we have data which may be accepted as reliable upon which to base a judgment of the value of egg albumen in baking powder.

Apart from the conclusions reached with regard to the matter at issue the article presents many phases of the general subject of baking and baking powders that have a peculiar value to investigators, and it may be said that the volume of data secured will form a basis for work not contemplated in these tests. Our readers, therefore, owe a debt of gratitude to Commissioner Wallis for exhaustive and painstaking experiments.

CHILLED FOOD CONVENTION.

THE world is wiser for the recent convention at Chicago, of refrigerator experts, for there was much said and done at this meeting calculated to enlighten people generally regarding the nature of chilled food products. In fact the work of the convention as a whole was treated in a serious, dignified manner by the experts who came long distances to attend the meeting.

Somehow the public had got the wrong idea about chilled food products. Much sensational matter has been printed from time to time about cold storage stuff, and this led many people to suppose that all manner of food that came out of cold storage was more or less of a refuse product, put away and frozen, to be sold under a deceitful label in seasons of scarcity. It was not fresh and therefore it was held to be at best near good food.

The experts at the recent convention presented many able papers on the subject of preserving food by the cooling process, and these papers, or excerpts from them printed in the daily and trade press have done much to enlighten the people as to the true significance of chilled food. People are learning that it is a part of wisdom to conserve our food supply by putting into cold storage the surplus food of times of plenty to be brought out for consumption at those seasons when there is a scarcity of the particular food. In this way much that would otherwise go to waste is preserved for future use and as was demonstrated very clearly at the convention, such food if properly treated is a most wholesome substitute for the fresh product.

The convention was educational in a large degree and as a result of this gathering chilled food products will have a better status with the consuming public.

FOOD VALUES ADVANCE.

ACCORDING to the figures of the Bureau of Labor food prices have advanced sixty per cent over the average prices that ruled between 1890 and 1900. The prices for this year show an increase of three per cent over those of last year and nearly fifteen per cent over those of two years ago.

The investigation carried on by the Bureau of Labor was made in forty cities. Fourteen articles of food were investigated and all of these with the exception of sugar showed a marked advance. Bacon, which led the advance shows an increase in price of 128.5 per cent.

Practically everything produced on the farm has advanced steadily in price during the past ten years, and with the advance in the price of farm products there has been a steady advance in land values.

At the prsent price of farming land there appears to be no relief in sight for high prices of farm products and if the price of farm land shall continue to advance, we may reasonably expect to have to pay still higher prices for all products of the soil.

We may look for a measure of relief as a result of the new tariff regulations. But this will not cut food value much since there is a world-wide demand for all kinds of food products. What little we may get from abroad will not do more than put a temporary check on further advances.

The world is short of food. Better farming and a greater degree of economy is needed, and will no doubt be forced by the advance in prices.

Chilled Food Experts Convene

Men Interested in Cold Storage Gather in Chicago to Promote a Better Understanding of Their Industry

FROM practically every part of the civilized world there came to Chicago during the last days of September many men interested in cold storage problems. About 500 foreigners were present, which with the men of this country interested in the industry made a mighty host.

These gentlemen object to the further use of the term cold storage products, preferring to regard the frozen products in which they are interested as "chilled food."

Twelve hundred delegates arrived from Washington in two special trains and from every other point of the compass on other lines, crowded the ballroom of the Hotel La Salle at an Association of Commerce luncheon, given in honor of the foreign representatives to the sessions of the organization at the International Amphitheater at the stock yards.

Delegates from twenty countries, sent to confer upon new and improved methods of refrigeration, discussed perishable products and the best ways of constructing refrigerating plants. Packers, mechanical engineers, members of departments of agriculture and commerce, physicians, druggists, laboratory investigators, horticulturists, ice manufacturers, chemists, railway presidents, college professors, refrigerating engineers and superintendents of refrigerating plants were among the delegates to the congress.

The six sections of the congress are:

1. Liquid Gases and Units, (a) Physics and Chemistry, including Thermometry; (b) Biology; (c) Units in Refrigeration.
2. The Design, Construction, Operation and Methods of Testing Refrigerating Machinery and Insulating Materials.
3. The Application of Refrigeration to Foods for the Purpose of Conserving and Preserving Them.
4. The Use of Refrigerating Apparatus in the Industrial Arts.
5. Consideration of Refrigeration in Railway and Steamship Transportation.
6. Consideration of Questions Relating to Legislation and Administration.

The delegates were practically unanimous in protesting against the use of the term "cold storage" as applied to chilled and refrigerated foods, declaring that the opprobrium attached to the former name would extend to the new methods unless a change of name were unanimously adopted throughout the world in connection with the change of methods.

In the long list of visitors from abroad were many well-known names in scientific circles, including Roux M. Pierre of Paris, France; Philip Porgie of Vienna, Austria; D. Friedrich Schipper of Wiesbaden, Germany; Witold Pluszezewski of Moscow, Russia; Dr. J. P. Kuenen of Holland, and Guiseppe Latmiral of Italy.

Fourteen hundred guests were seated at the big banquet of chilled products which was held during the convention at the White City casino.

The United States Department of Agriculture had an exhibit designed to show the people, and especially consumers, how food products are handled and preserved by low temperatures. The exhibit was intended to illustrate the important and widespread investigations that the department has been making in order to prevent waste by spoilage between the producer and the consumer and to save the extra supply of the flush seasons for the seasons of scarcity. Among other things, the exhibit showed how fruits, poultry, eggs, butter, meats, fish and many other foodstuffs are prepared for a market that may be three thousand miles away, or even six thousand in the cases of products, like Pacific salmon and Northwestern apples, which frequently are shipped in large quantities straight through to Europe. The exhibit showed the loaded, iced refrigerator-cars—the nation's market wagons. The consumer could see for himself just how the supplies of food for the winter time are put into the clean, zero-cold storage rooms, which keep their freshness for many months, if the methods of preparation that the department's scientific men have worked out are followed.

President Wilson is a patron of the refrigeration congress, and the Secretary of Agriculture is honorary president. The regular officers are the following:

President, Dr. Frank W. Gunsaulus, president Armour Institute of Technology of Chicago.

Treasurer General, James B. Forgan, president First National Bank, Chicago.

Secretary General, J. F. Nickerson, Chicago.

The convention of the American Meat Packers' Association was held during the week of the International Refrigeration Exposition. Although the two organizations are separate, they have so much in common that it was fitting that both meetings should be held at the same place during the same period of time.

At the joint meeting it was pointed out that something must be done very soon to avert a meat famine now staring us in the face. The hope was expressed that a large tract of land in northern Mexico would some day become the property of the United States for use as a cattle breeding ground. The only logical source, it was said, is domestic production, supplemented by that of Mexico and Canada. Mexico contains the best undeveloped cattle breeding ground in the world. Much of its area is naturally pastoral.

In condemning what he believes to be the incompetency of government officials, Mr. Poole said:

"How soon is the beef industry to be rehabilitated? No definite answer can be given, but at this critical stage federal assistance would be of great benefit. Junkets by sad-eyed scientists to Siberia and other remote regions in search of puckerless persimmons might be dispensed with. Let the government finance the cow man until the cattle breeding industry is on its feet.

"At the outset $50,000,000 should be appropriated and made available for five-year loans on cows. The basis of the live stock business is credit, and no better credit can be desired than cattle paper where the owner is able to care for the stock."

A. W. Mayo, a Boston packer, also attacked the government with regard to wastefulness.

"Meat can be saved at the slaughter house, in the butcher shop, and, above all, in the home," he said. "The stringent laws which control the packer cause much of the waste. We must throw away much which could be used for some food purposes just because the government makes us do so."

Poor railroad transportation, as affecting waste and the high cost of foodstuffs, was attacked by both Mr. Poole and W. F. Priebe, chairman of the transportation committee of the National Poultry, Butter and Egg Association, the latter speaking before his organization at the Hotel Sherman.

Mr. Poole stated it often took the railroads nearly two days to bring shipments of cattle from points only 150 miles from Chicago, and that shippers were forced to endure similar obstacles sufficient to "drive them from the cattle business in disgust."

"At present, out of over a billion dollars' worth of eggs sold every year, $75,000,000 worth are destroyed," said Mr. Priebe. "Inadequate methods of transportation are the cause of this condition."

"The American people are the most extravagant in the world in the handling of their food supplies," said Senator Sherman. "We must realize that preservation is as much or even more important than production."

Other speakers were M. Andre Lebon of France and former Senator W. E. Mason.

GRAPE JUICE POPULAR DRINK.

To the average layman grape juice is a comparatively new product, whose advent dates back only a very few years; but as a matter of fact it was known long before the wise old prophets of bible times foretold of the Christian era. No doubt Adam and Eve smoothed over their first quarrel by imbibing a harmless sip of grape juice from the broken shell of a cocoanut.

Down through the ages we read of grape juice, such as it was, until today the name of the perfected product is on the lips of nine-tenths of the 90,000,000 American people, and is known in every quarter of the globe. It can be found in the windows and on the shelves of every progressive dealer from Maine to Mexico. The up-to-date housewife has it in her pantry and ever present on her table, because she knows it has nourishing, healthgiving qualities for her young, romping children and for her aged parents. She knows right well that it is a tonic with absolutely no bad after effects and that it is easy to prepare. She is no longer at her wits ends to keep the youngsters from forever pulling at her skirts and asking for a "dink o' wauwau," or to keep the older children from begging nickels to buy drinks that are more or less harmful.

Society has the grape juice craze and their parties are made even more brilliant by such refreshments as grape-juice punch, grape float and grape juice highballs. Often the punch bowl at such an affair is set off in a corner under a real grape arbor. Mingled with the vines and clusters is an artistic array of miniature electric lights of all colors, giving the whole surroundings the effect of a veritable Dreamland. Society dinners and other such functions are as empty without grape juice as a home without mother. The golfer, picnicer and the tired laborer all recognize grape juice as refreshing, invigorating, nerve-building and last but not least, economical. Down in Louisiana the "Grape Juice Wabble" is the latest society dance, and its introduction under the name typifies the popularity of grape juice in that state. Recently a great statesman adopted grape juice as his choice.

Elbert Hubbard says it aids digestion and increases appetite, and if sufficient grape juice be supplied there will be an end to the temptation to eat unwholesome sweets—that the way for every member of the family to keep well is to drink grape juice.

One might wonder after all, why the good qualities of grape juice did not dawn ages ago, or lie dormant for ages to come, as many articles of genuine merit will do. It remained for Armour & Company to popularize this wonderful beverage, and they decided in August, 1908, to embark in the grape juice field.

They started by placing an order with a concern in Mattawan, Mich., for a quantity of the very best Concord grapes obtainable. Forty thousand gallons was the first year's output, and that looked big. The entire season's output was sold almost before the stream had stopped squirting from the little one-horse press, because the public liked the Armour standard of quality which was exemplified in that first year's output.

The next year Armour & Company took over the large factory at Mattawan, modernized and enlarged it and turned out 110,000 gallons. This entire amount was disposed of so easily that in 1910 the capacity of the Mattawan plant was again doubled, and in addition there was purchased a large plant at Westfield, N. Y., right at the home of the very best Concord grapes, and the total output for both factories for that year was 250,000 gallons. Armour's grape juice became such a universal favorite that in 1912 the output was a million gallons more than of 1910, or an increase of 400 per cent.

All Armour Grape Juice was bottled right at the factories, and this fact gave birth to the famous phrase used in Armour & Company's advertising matter, "bottled where the best grapes grow."

Back of this phenomenal growth was one of the most extensive advertising campaigns ever launched on any single product. Every possible phase and media of advertising of any worth was given its appropriation. Billboards, street cars, national magazines, newspapers, trade magazines, window and store displays, advertising literature, trade helps, lantern slides and prize schemes were all given an opportunity to talk for Armour's Grape Juice. All these proved a great boon to the wide-awake and progressive merchant who is ready at all times to take advantage of the universal public demand created by such a gigantic advertising campaign. And spending money for advertising is generally acceded to be sufficient evidence of an underlying confidence in the superiority of that particular product—at least that was the case with Armour's Grape Juice.

POULTRY AND EGG CAR.

The United States Department of Agriculture, in co-operation with the University of Missouri and the Missouri State Poultry Board, has been running, with the assistance of various railroads, what is probably the largest poultry and egg handling extension work ever before carried on in this country.

From July 18 to August 26 twenty-eight towns were visited by the two demonstration cars. These towns were located on the lines of the Missouri Pacific, Kansas City Southern, Missouri and North Arkansas, Frisco Lines and Chicago and Alton railroad, in central and southwest Missouri and northern Arkansas.

This work was planned to assist the farmers and poultry dealers to obtain a better knowledge of their business, to increase their profits and increase the supply of poultry and eggs for use as food for the consuming public, and to prevent the large waste now existing, due to faulty methods of handling these products. To this end two demonstration cars were equipped, one by the Missouri State Poultry Board, under the direction of Mr. T. E. Quissenberry, director of the Missouri State Poultry Experiment Station; the other by the Food Research Laboratory of the Bureau of Chemistry, United States Department of Agriculture, under the direction of Dr. M. E. Pennington.

The Missouri car contained living specimens of the best breeds of poultry adapted to general farm conditions, models of poultry houses, incubating and brooding devices, nests and other appliances used for the raising of poultry. It also contained samples of feeds and proper rations, charts on the election of breeding stock, feeding of poultry, combating of diseases, photographs of the leading hens in the famous Missouri egg-laying contests and graphic illustrations of the number of eggs that hens should lay as compared with the few eggs laid by the average hens in the state of Missouri.

The government car is a specially equipped refrigerator car containing a cooled candling room and chilling room. This car is the only one of its kind in existence. It is equipped with a gasoline engine which runs a dynamo for lighting the car and a centrifugal blower for cooling the car by means of air drawn through the ice and salt and forced into the car through holes in a false ceiling. The air returns to the ice and salt bunker in the end of the car through false side walls. The candling room in the car is equipped with electric candles and resembles very closely a commercial candling room. Other types of candling devices are shown for use where electricity is not available. This car contains, also, a new picking-frame and cooling rack, recently designed by the department for the dressing of poultry.

Questions regarding the raising and handling of poultry on the farms were answered by Mr. Ralph H. Searle, vice-director of the Missouri State Poultry Experiment Station, and Professor H. L. Kempster of the University of Missouri. Questions regarding the grading and marketing of eggs and the handling of poultry were discussed by Mr. H. C. Pierce and Mr. F. S. Jacoby, investigators in poultry and egg handling of the Department of Agriculture. Many handlers of eggs brought samples of their eggs with them to the car for grading and discussion. The values of the different grades of eggs as food were shown. For instance, the demonstrator would take a number of eggs, grade them out into the strictly fresh, high quality egg; the lower quality eggs, such as stale, shrunken, dirty, heated eggs, etc., the eggs unfit for food, including the different kinds of bloody and rotten eggs, describing the conditions necessary to maintain high quality and the causes which make loss and deterioration.

In addition to the demonstrations held at the cars near the railroad stations, wherever possible lantern slide lectures along similar lines were given in the evening. The attendance at the various places varied from 50 to 500 people per day, but in all cases the interest was excellent. The farmers who raise poultry were told by the state people how to produce more and better poultry and to insist upon its being bought on a graded quality basis, whereby they would receive more for good eggs and poultry than they did for poor eggs and poultry. The dealers were encouraged by the department specialists to work toward the end of buying on a graded quality basis in order that there might be a financial incentive for the farmer to produce poultry of a better grade.

The results of the work thus far have been gratifying and it is proposed to carry on similar demonstrations during October and November and next year.

Limitation of the Federal Food Law

FORTY-EIGHT states must rigidly inspect and control all easily contaminated foods and drugs produced within their borders. These include such foods as milk and other dairy products, water, fish, shellfish, many meat products, candy, and, indeed, all food that is eaten raw or shipped exposed to the air. Each state owes this protection both to its own citizens and to those of other states who buy its products.

The individual state must guard the health of the state. The Federal authorities cannot do this work for the states. The Federal authority, under the Food and Drugs Act, extends only to food products entering into interstate commerce, and transmission of disease through infected food and water is not wholly an interstate matter. Disease frequently is of local source and local spread. The Food and Drugs Act is not an effective weapon against the spread within the state borders of disease-producing organisms in food. The Federal authorities cannot interfere with domestic commerce, but the state health officers are under no such limitations. Moreover, the Federal authorities have no right of entry and inspection into food factories within the state lines. A factory can be run under the most unsanitary conditions; milking may be done by a man recovering from scarlet fever, or milk may be produced on a farm where a member of the family is suffering from typhoid, and the Federal authorities have no power to act. Even if these products are shipped across the state line and samples are taken, there is no method for analyzing a product which can supply evidence that the food is produced in unsanitary ways or within contaminating reach of epidemic or endemic diseases. The state authorities, however, can enter these factories, need not wait for shipment across state lines, and, therefore, provided only that their laws are efficient and the funds at their disposal adequate, can prevent the sale of these deadly unlabeled foods.

The Food and Drugs Act, as administered in the past, has been very largely an economic measure. It has, to be sure, prevented very largely the mixing of active poisons in hurtful quantities with food products, but its particular work has been to see that food products are properly branded, so that the consumer knows what he is getting and is not cheated into paying a high price for a product adulterated with a cheapener. This must of course always be one of the purposes of the Act; but we must not be deceived into believing that this very important economic function of the Act is of great hygienic significance. Misbranding does not demonstrably affect the death rate of the country. If the efforts devoted to prevention of misbranding were to be concentrated more largely upon the suppression of the traffic in contaminated milk, meat, vegetables and other products that may carry disease, a positive reduction of the country's death rate would inevitably result. At best, however, the Federal authorities under the Food and Drugs Act can deal only with such of these bacteria-carrying products as chance to enter interstate commerce.

The Federal control of interstate commerce has in the past, and will have to be in the future, of more benefit to the large cities than to the small towns and rural communities, because the large cities even though in the center of the state, draw their supplies to a far greater degree through interstate commerce than do the small towns and rural communities. The help that the Federal inspectors can extend to the rural communities, therefore, is absolutely limited to those settlements which happen to be near the borders of the state and so receive some of their easily contaminated foods through interstate commerce. The rural communities in the hearts of the states seldom obtain these unlabeled and possibly dangerous foods through interstate shipment. They get their food of this kind almost wholly in domestic commerce. Their milk comes from nearby farms. Their meats, if not slaughtered locally, come from nearby cities. Their fish and shell-fish may be shipped to them from sea-food centers in the nearest large towns within their state borders.

It is unfortunate that the large cities derive such preponderating advantages from the Federal control of interstate commerce. I say unfortunately advisedly, because the large cities need Federal protection far less than the small towns or rural community. The reason is that systematic health protection work in the United States is largely confined to the big cities.

In many states the large cities are the only points which have any real sanitary protection. Our rural population of 49,000,000 people, including the 30,000,000 who live on farms, with the exception of those fortunate rural dwellers in one or two exceptional states which regard the health of the country people as also important, receive very little state health protection and maintain no local protective system of their own against contaminated local milk, meat, shell-fish, fish or vegetables. Moreover, only a small number of these rural inhabitants are safeguarded, by competent inspection, against polluted water supply or sewage disposal methods dangerous to health and life.

To this rural and unprotected population we can add the bulk of the 14,000,000 people who live in towns, cities and suburbs of less than 25,000 inhabitants, excepting those here and there who happen to dwell in the more progressive towns, or in those few hamlets located in the exceptional states that have already awakened to the importance of rural sanitation. If we wished we could go even further and add the populations of many cities of 25,000 or 50,000 people which maintain no health officers; and of those cities which have health officers but so cripple them with poor laws or ordinances, or with insufficient funds, as to make their food inspection work most ineffective. I mean cities, for example, where Boards of Health are practically powerless under the law to seize milk except when it is actually watered or skimmed. These health officers must look on helplessly while milkmen send milk so dirty, or from such dangerous, disease-breeding places, as to make it a menace to the consumer. To prevent this deplorable condition it is absolutely necessary that uniform standards of bacteriological cleanliness as well as chemical composition be established. Bacteriological control is absolutely necessary to prevent the spread of contagion.

The probability, therefore, is that there are upward of 70,000,000 out of our 91,000,000 people who have no efficient and systematic protection from the major causes of the spread of typhoid, tuberculosis, deadly intestinal diseases of infants, scarlet fever, septic sore throat, trichinosis, and other ailments resulting from the circulation of disease producing organisms.

We must not let ourselves be blinded by statistics, for the statistics of disease in the United States are notoriously unreliable. For certain sections no attempt whatever is made to collect them. I need not tell an audience such as this that reliable statistics are the basis of all health protection. Until severe penalties are inflicted for failure to report cases of infectious diseases, until failure to do so results in the cancellation of the license to practice medicine there will be no really reliable statistics. And this will only be brought about when the state health services throughout the land furnish a permanent career for life instead of being, as they are but too often at present, a side-line of politics—medical or otherwise. And these services should furnish a career like the Federal Civil Service, to sanitary engineers and chemists as well as to physicians. The people must learn that their health is too valuable to entrust to temporary health officers or to physicians who devote to the discharge of their duties as health officers, only such irregular moments as can be spared from their private practices.

The sections of the country in which, as already stated, little or no attention is paid to keeping records of disease are rural. The large cities keep some sort of record because attention to health protection and to easily contaminated foods is centralized almost wholly in the cities. With rare exceptions the effectiveness of the protective work depends on the individual city, rather than on a

Abstract of address on the "Limitations of the Federal Food Law" by Dr. Carl L. Alsberg, Chief Chemist, U. S. Department of Agriculture, delivered before the 41st Annual Meeting of the American Public Health Association at Colorado Springs, Colo., on Sept. 9.

state-wide law or a state-wide and efficient health inspection system. Therefore, the collective figures of urban deaths look more significant but if we could make an accurate total of the deaths on farms from the same causes, the figures would be appalling. In the country a man dies of "fever" or a "cough." The cities would announce that he died of "typhoid" or "tuberculosis." In the country babies fed on bad milk just die. In the city they die of accurately defined intestinal disorders and when the infantile death rate mounts, rigid milk inspection follows. In the cities, typhoid is often traced to its source and protective measures invoked. In the country the dangerous well or infected food supply usually continues to work havoc.

One might suppose that where a city adopts and enforces a good health protection system, the educative effect of this must necessarily extend to the adjacent rural and suburban population. The truth is that an effective city health protective plan, where the surrounding rural districts have no adequate state or local protection, makes food conditions worse instead of better in the surrounding country districts. For example, Pittsburgh, Pa., and Cleveland, Ohio, have effective milk inspection. The health officer of one city notifies the health officer of the other city when milk entry has been refused to a certain dairy. This prevents that dairy from offering its refused milk to the other city. The results naturally would be that the producers of bad milk refused sale in these two larger cities could readily dispose of their product in the smaller places like McKees Rocks, Sewickley, Beaver Falls and Coraopolis, which might have no effective milk inspection systems. The same thing is happening in many New Jersey towns. Milk refused entry into New York City by the Board of Health is sent to towns like Perth Amboy, which may have health officers, but which do not provide them with funds enough for efficient milk inspection work and to carry on expensive prosecutions.

The Department of Agriculture feels that it should give more attention to the protection of these rural communities. This means that the work hitherto largely confined to detection of the presence of preservatives in labeled foods which do not carry organic diseases, and the prosecutions for misbranding which might work a monetary fraud on the consumer, should be widely and rapidly extended to the control of interstate commerce in the dangerous unlabeled foods which can transmit and which do transmit serious diseases.

Plans for extending this work to interstate shipments of milk all over the country have already been made. It is the plan of the department to do more than exercise merely police control over interstate shipments. Plans have been made at the same time to show the milk producer how to produce better milk; and also to show him that it will pay him to produce his milk under the best conditions. The educational and the regulatory work will go on together—an ancient combination much used by the old-fashioned school teacher who taught by precept when he could and resorted to the switch when he had to.

The only help that the department's work in the rural communities around the state's edges can be to the country districts in the heart of the state is to educate, through example and by means of pubilicity, the rural population throughout all the states to demand of the state that it extend to them the same protection now enjoyed by the large cities against preventable disease disseminated through their food. It is along these lines that the state officials can co-operate with the Federal government. They can help to arouse the public to demand effective state-wide measures in all the states, and to insist on an efficient, permanent staff of health officials, and rigorous supervision of the preparation of all foods liable to contamination and pollution. The Department of Agriculture will do its duty not merely in exercising control over interstate commerce, but also in helping food producers bring their food up to proper quality, and it will thus add materially to the available supply of honest and safe food in the country. The great purpose of the Department of Agriculture is a constructive one, namely, not merely to punish adulterators of food, but to help honest manufacturers to discharge their duty to the community by supplying wholesome products. The actual detection and closing of dirty or unsanitary factories and dairies, or the compelling of their owners to mend their methods, must, however, rest with the states.

MILLERS SHOULD MAKE BAKING TESTS.

Dr. A. L. Winton. Chief of the Chicago Food and Drug Inspection Laboratory of the U. S. Department of Agriculture, spoke September 11 on "The Miller and the Chemist" before the Convention of the Pennsylvania Millers' State Association at Atlantic City.

Dr. Winton, in opening his address, pointed to the fact that the farmer had long relied on the chemist for help first, in regard to fertilizers, later in feeding his cattle and finally in the matter of human food. The miller, he said, had been somewhat behind the other industries in putting the chemist at work. After pointing out the place in which the chemist can be of distinct service to the miller, Dr. Winton strongly advised the continuance of the baking tests. He said, "My father was a good judge of grain and flour. In his mill every lot of flour had to be tested, my mother being his assistant in this work. At meal time, the laboratory moved from the kitchen to the dining table and the first part of the meal was spent in judging the quality of the loaf."

The small miller can often attend to his machinery and, in addition, make baking and other tests. If he has not the time, the bookkeeper or stenographer can be trained in this work. As for strictly chemical analysis, these are not usually necessities except in mills of sufficient size to send their goods into other states or to other countries, or which manufacture a variety of products and prepare mixed feeds. In mills of considerable size, there must naturally be a division of labor, the miller and the chemist each doing his share of the work.

While some mills follow conventional methods, still others follow methods of their own devised to meet the peculiar conditions of their trade. In some of the soft wheat mills biscuit, instead of bread, are made, as this is the product for which the flour will be chiefly used. I see no reason why crackers, or even cake, should not be made in the tests, provided the product is destined for this particular use. In rye mills, naturally, the test loaves should also conform to the needs of the consumers. In our work with corn meal we have recently made comparative tests by baking muffins, corn bread and also by the preparation of corn meal mush. It always should be borne in mind that all such tests are purely practical and do not require chemical training.

The moisture content of flour is a point too little considered. If, in buying and selling grain, the moisture is taken into account, as it should be, by the sound business man, the moisture in flour and meal, as well as in the by-products, should also be given suitable attention. The variation of a per cent of moisture in the flour of the big mill is equivalent in a year to thousands of barrels and thousands of dollars.

The moisture content will be one of the very greatest importance a year hence when the weight and measure clause of the Food and Drugs Act is operative. It is contended by some of our leading millers that in judging as to shortage in weight the Government should take into account the moisture content. For example, if flour contains when shipped 13½ per cent of moisture, which has been accepted as the standard, and if the sample shows but 11 per cent of moisture when examined, an allowance of 2½ per cent shortage in weight, which is the difference between 13½ per cent and 11 per cent, should be allowed. Experiments are now in progress as to the shrinkage in flour as caused by loss of moisture.

"The amount of moisture in meal is of even greater importance than in flour because moisture is not only commercially valueless and influences shrinkage, but also because it is an important factor in causing spoilage. It is, therefore, especially desirable that the chemist aid the miller in drying to the proper degree."

"DELICIOUS HONEY CRISPS."

The Standard Flaked Food Co., Owosso, Mich., has been fined $50 for the alleged shipment into Indiana of so-called "Honey Crisps Corn Flakes," which was misbranded, according to a notice of judgment just issued by the Department of Agriculture.

The label on the package described it as "Delicious Honey Crisps, a Toasted Corn Flake Dainty—Guaranteed by the Standard Pure Food Co., under the Food and Drugs Act of June 30, 1906. Guaranty Filed with Secretary of Agriculture Under Serial No. 5165."

This label was considered deceptive, and misbranding was charged because it conveyed the idea that the product contained a substantial amount of honey, whereas analysis showed it to contain practically no honey.

Pennsylvania Correspondence

(From Our Staff Correspondent.)

HARRISBURG, PA., Sept. 27.—The constitutionality of Pennsylvania's new cold storage law will be fought out in the Dauphin county courts on October 8 when argument will be heard on the demurrer filed by the attorney general's department in behalf of the secretary of agriculture and the dairy and food commissioner, who were made defendants by the action in equity brought by several Philadelphia firms. This suit, which was designed to test the act of 1913, was entered to restrain enforcement on the ground that its provisions were confiscatory and burdensome, being able if carried out to cause great damage to investments of companies. It was pointed out that great power was lodged in the commissioner and that the business of the plaintiffs and others would be harmed. The demurrer, entered by the state a few days ago, denied that the plaintiffs were entitled to relief by equity and that they had been injured or shown whether they would be injured. It was also set forth that there was adequate remedy at law for damages sustained. The test case will probably be appealed, no matter which way it goes, to the supreme court, and meanwhile the act will be enforced.

The trial is expected to attract much attention, as every one of the seventy-five cold storage firms which have taken out licenses will be interested and some may be represented at the hearing.

The enforcement of the law in the cities of Philadelphia and Pittsburgh has been marked by the outlawing of large quantities of foods stored beyond the limits allowed in the cold storage act and by arrest of retailers in half a dozen counties in the eastern part of the state for failing to display a placard bearing "Wholesome Cold Storage Food" with cold storage foods.

A number of firms which had applied for licenses withdrew their applications, contending that they stored for less than thirty days, which entitles them to exemption.

When the case now pending in court is out of the way it is probable that the dairy and food commissioner will invite a conference with a view to ascertaining what changes should be made in the law in regard to certain provisions. A number of questions have arisen in regard to small compartments rented by merchants in large cold storage establishments, these compartments being used only for storing over night or for a few days.

Dairy and Food Commissioner James Foust has given notice in the newspapers that he will declare outlawed in December all April eggs stored in the state. It is estimated that there are 15,000,000 dozen eggs stored in cold storage warehouses in this state and that the bulk of them are being held for December business. A controversy has been waged over the right of the commissioner to outlaw these eggs, and the attorney general's department has informed the commissioner that he cannot change the provisions of the law which limit the storage of eggs to eight months. He had been appealed to for the purpose of securing a modification of the clause.

Tests of the milk and cream supplies in thirty-five counties have resulted in ninety arrests being made out of 3,000 samples taken. The violations were chiefly on the score of watering. No formaldehyde was found.

The State is testing in various courts of the state the question of what constitutes adulterated vinegar. One case brought here for the purpose of being appealed to the supreme court is whether acidity can be reduced from 6 to 4.6 per cent by addition of water. There are a number of slants to the vinegar cases and in the absence of clear legislative enactment the courts are being asked to determine the question.

Evasion of the law requiring eggs unfit for food to be denatured by smashing of shells and impregnation by kerosene has caused over a score of arrests in Philadelphia.

Pennsylvania's Association of Sealers of Weights and Measures declared at their annual convention held at Harrisburg, Pa., September 24 and 25 in favor of abolishing the combination measures, or those open at both ends, and called for a uniform system of enforcing the inspection acts in the state and for national legislation.

The sealers elected Harry A. Boyer, Harrisburg, president; J. F. McGroarty, Wilkes-Barre, and Glenn A. Ross, Waynesburg, vice-presidents; James A. Sweeney, chief of standards of Pennsylvania, secretary; B. Frank Rinn, Allentown. The legislative committee is composed of J. F. McGroarty, Wilkes-Barre; H. D. Reel, Harrisburg; W. L. Jannssen, Scranton; W. J. Gallaghan, Uniontown; R. B. Clayton, Pottsville; W. B. Dunn, Altoona, and W. H. Sanner, Somerset.

The resolutions adopted were as follows:

The members of the Pennsylvania Association of Sealers, in assembly met September 23 and 24, 1913, desire to go on record as follows:

Whereas, We are in convention properly convened and largely attended by members from all parts of the state, therefore be it

Resolved, That the Pennsylvania Association of Sealers go on record as endorsing the stand taken by the national conference in favor of weight as against volume measure.

Resolved, That we recommend to the Bureau of Standards of Pennsylvania that all laws and regulations relative to or anent the subject of weights and measures be codified and bound into suitable form for distribution among the sealers of the state and others interested.

Resolved, That we commend and thank the members of the last session of the Pennsylvania legislature for their interest and votes in favor of progressive weights and measures laws and in particular do we thank them for the passage of the Gerberich Bills Nos. 10 and 11, and Governor John K. Tener for his approval of the same.

Resolved, That it is the sense of this convention that the Bureau of Standards issue rules and regulations that will place a ban on the obnoxious "combination" or double measure.

Resolved, That we, as sealers of weights and measures of the great commonwealth of Pennsylvania, take such steps as are necessary to bring about the adoption and enactment into law of a specification or type law that will regulate the sale of all devices for weighing and measuring in this state.

Resolved, That we go on record as favoring the appointment or election of a "press committee," not to consist of less than three members, to see that the sessions of the convention get the publicity and recognition due the cause.

Resolved, That we request the Bureau of Standards to use its best efforts to have the various sealing districts of the state to use a standard daily report and one that will usher in an era of uniformity.

Resolved, That we suggest to the executive committee of the association that a complete program for the next annual state convention be formulated or prepared at least three months before the date fixed for the next meeting.

Resolved, That inasmuch as we believe that attendance at the national conference at Washington, D. C., is both enjoyable and instructive, we recommend or suggest that all members of this association make an effort to attend the next annual conference.

Resolved, That it is the sense of this convention that we go on record as favoring national weights and measures legislation to the end that uniformity in intrastate and interstate commerce may be obtained.

Resolved, That we express our sincere sympathy and regret to Mr. Murray G. Livingston, city sealer of Pittsburgh, and the Hon. James Sweeney, chief of the Bureau of Standards, in this their hour of illness, which prevents their attendance at this convention.

Oil of lemon valued at about $2,500 was seized from a transportation company at Boston, Mass., by United States Deputy Marshal Ruhl. It is claimed in a bill of information filed in the United States District Court that the material is adulterated with citral. The shipment came from the Sethness Company, Chicago. On account of the great increase in the value of oil of lemon from 60 cents a pound a year ago to $5 a pound at present, there is a tendency to adulterate. This is the biggest seizure of oil of lemon made by the Federal pure food and drug inspectors.

Indiana Correspondence

(From a Staff Correspondent.)

INDIANAPOLIS, Ind., Sept. 29.—Food and drug protection at county fairs in Indiana this year took on the aspect of police regulation. Never before has the state department in Indiana taken such an interest in regulating old abuses of the public at fairs that had become a time-honored custom.

State food inspectors all over the state were deputized by H. E. Barnard, state food and drug commissioner, to watch all county fairs—and there are many of them during the summer and early fall months—and to arrest every violator of the pure food statutes that appeared on the grounds or among the exhibitors whose products were sold on the grounds.

Mr. Barnard said the pure food laws had been more generally violated in Indana at county fairs and carnivals than at any other separate places in the state, and he appealed to the various presidents and secretaries of the local fair boards to co-operate with the state department in its attempt to "clean up" these places.

Strict observance of the food laws at the state fair, which was held in Indianapolis early in Septemebr, was a marked departure from former years. Secretary Charles Downing took the cue from Mr. Barnard and the state fair grounds this year harbored no adulterated food "sharks."

The state department also insisted that food and drinks sold at these places be carefully protected from dirt and flies and these orders were faithfully carried out in most counties. The set of rules promulgated by the state for the guidance of county fair officials provided that all state laws should be observed by concession holders; that all stands must be properly screened; that all dishes or containers of food or drink should be thoroughly cleansed and washed and sterilized by boiling water; that lemonades should contain nothing but lemons, sugar and water and perhaps a little harmless coloring, if the labeling was correct in such instances; that no sweetening other than sugar should be used in food products; that unfermented cider only could be sold; that arrests would follow emptying of unconsumed drinks into original supplies.

Practically all express companies operating in Indiana have replied to a warning sent out by H. E. Barnard, state food and drug commissioner, in which he called attention to alleged violations of the law passed by the 1913 legislature, which provided that cream, milk and ice-cream containers never should be returned to the manufacturer or dairyman uncleansed. Many instances of the violation of this new statute had been reported to Barnard and he decided to notify the express companies that it became their duty not to accept such unclean containers.

Letters from high officials of the express companies told of orders given to all agents in Indiana to personally inspect these food containers before accepting them for reshipment. A visit from W. S. Matthews, the new state food commissioner of Illinois, is expected at once by Mr. Barnard. Matthews has written asking for a favorable date to make an inspection of the way in which Indiana handles its pure food and drug work.

The Ridgeville town board has appealed to the state board of health to make a quick sanitary survey of the town in an effort to prove whether the water supply of the place is impure. Mr. Barnard still is troubled by reports from several places in the state of the activities of an alleged food and drug inspector who is representing that he sells the only egg-tester authorized by the state department for use by egg dealers. This man has represented that he is an accredited food and drug inspector, who is selling the egg-tester prescribed by the state board. Barnard has warned all his deputies to be on the lookout for the imposter and arrest him if captured.

Fifty samples of food, out of a total of 156 inspected, were found illegal by experts in the offices of the state food and drug laboratories during the last month, according to the report from H. E. Barnard, state food and drug commissioner. Ice-cream below standard was responsible for much of this illegal food discovered. Twenty-one samples of ice-cream were classed as illegal, much being below standard and some being adulterated. Nine of the twenty-six sodas analyzed were artificially colored and one illegal vinegar was found.

Twenty-seven of the 107 samples of drugs analyzed were found illegal. Two of the three linseed oils examined contained mineral oil and were illegal. Two of the twenty-seven samples of paregoric analyzed were high in morphine content and were illegal. All of the twelve samples of camphor investigated were below standard and classed as illegal. Three of ten samples of syrup of hypophosphites were illegal. Four out of thirteen samples of tincture of iron were below standard. One sample of tincture of arnica was low in extract.

During the month the inspectors of the state department visited sixty-one towns and cities of the state and reported 1,244 sanitary inspections. Of that number fifty-three places were in excellent condition, 677 were "good," 465 were "fair," forty-five were "poor" and four "bad." Of the eleven dairies visited two were rated "good," five "fair" and four "poor."

Twenty-two of the 430 grocery stores visited were classed ""excellent," 273 "good," 124 "fair" and eleven "poor." Of the 134 meat markets inspected, eighty-seven were "good," six "excellent," thirty-five "fair" and six "poor." Eleven of the 110 drug stores were classed as "excellent" and only one was "poor." Of the 258 bakeries and confectioneries but one was "poor," while eleven were "excellent." Seventeen of the fifty ice cream parlors were "good" and four "poor." One canning factory was rated "poor" out of thirteen visited.

Three prosecutions resulted during the month from discoveries of temperance beer which failed to meet requirements.

Attorney General Thomas M. Honan has given an opinion to Mr. Barnard, state food and drug commissioner, in which he holds that section 7 of the Indiana cold storage act provides that a cold storage company shall pay a license for each warehouse kept by the company in different locations. Mr. Barnard had asked concerning whether a cold storage company, operating three warehouses in different localities, should be compelled to take out three licenses.

MEDICAL MILK COMMISSIONS.

The first bulletin in the new departmental series of the U. S. Department of Agriculture is a contribution from the Bureau of Animal Industry entitled Medical Milk Commissions and Certified Milk. This is a revision of a previous bulletin on the same subject.

The organization and objects of the first milk commission are described and the origin and meaning of "certified milk" are set forth. The word "certified" has been registered in the U. S. Patent Office and may only be used by a duly organized medical milk commission.

The first milk commission was organized in 1893. Since that time over 60 commissions have been established, but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk and the daily production is nearly 25,000 gallons, an increase of 300 per cent in five years. While this seems a remarkable increase, it should be remembered that only about one-half of 1 per cent of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremitting attention to details.

In 1907 the American Association of American Milk Commissions was organized. The methods and standards for the production and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin.

Tomatoes and Their Products

Spoilage Largely Due to Unsanitary Conditions

By Dr. L. J. Tint
Former Bacteriologist Illinois Food Commission

THE preservation of fruits and vegetables from a season of plenty to one of scarcity will be more marked in the future. This naturally favors the development of the canning industry, which is, at present, in its infancy.

There was a time when the majority of city folks could obtain fresh fruits and vegetables during an entire season. But now a great number of them must content themselves with canned goods. Hence, the increase of that industry.



VIEW OF A CANNING FACTORY.

The people engaged in raising vegetables and fruits on a large scale are usually quite distant from large cities. During the season the vegetable must be disposed of very rapidly, even the spoiled ones. In order to mask such undesirable products, coloring substances are utilized to imitate the natural appearance of the tomato. Preservatives are used to prevent the decay of the already decomposed fruit.

These preservatives enable manufacturers to keep such products for a longer period of time, until they are converted into the finished products. No preservative, even in large quantities, will make a wholesome food from partly decayed, rotten vegetable or animal products. No preservatives are needed if healthy materials are used and prepared under sanitary conditions.

Preservatives are usually medicinal substances. Some are more poisonous than others. All are intended to be used for certain ailments only and for short periods of time. Those that are commonly used are: Benzoic acid, acetic and boric acid, sodium chloride, borate, etc. The above preservatives even in moderate quantities are not strong enough to kill either the bacteria that cause the spoilage or the people that use the spoiled products.

Nor are these medicinal substances wholesome enough to be eaten all the time. Medicines are only intended to be used by sick people and not by healthy ones as food products. When used for long periods of time and during short intervals, the least poisonous preservatives have a tendency to produce gastro-intestinal disturbances known as indigestion.

In many states a definite amount of preservatives are permitted to be used (one-tenth of 1 per cent). Very few manufacturers have chemists to prepare and properly mix the desired proportions. Those that have no chemists either rely on a prescribed formula or depend on their individual tastes. The desire to prevent spoiling, not infrequently, influences to add more preservatives than the law permits. For the old supposition. "That if a little is good, more is better," is still prevalent with many producers. It favors the disposal of undesirable food products. But a guarantee under the pure food laws is always on the label. A new mask to fool the people.

During the course of the day, more than one food product is consumed by the average adult person eating in the average restaurant. If only one product would contain preservatives it would not be so bad. Usually, however, every one contains more or less of it. The sum total is more than any pure food law permits. These people, and even children, violate such laws; they should be prosecuted.

Healthy adults are able to partake of food products containing larger amounts of preservatives. If it occasions a slight attack of indigestion they are strong enough to withstand it. But sick people and children suffer most owing to their lowered physical condition. Milk, for instance, the only food for children and infants, is often adulterated with formaldehyde, etc. The supposition is that children never die from preserved milk or other food products, but from some unknown disease as summer complaint, heat, etc.



KETTLES WHERE CATSUP IS BOILED.

The use of preservatives should be prohibited. Good and wholesome food could be manufactured under sanitary conditions. There is one thing I cannot understand, why a food product when intended to be sold for interstate commerce must meet the re-

quirements of the pure food laws. However, if the same is to be used for local consumption or in the same state, no matter how objectionable it is, the pure food laws cannot be enforced.

Until recently it was customary in large factories to have a chemist to supervise the general processing. The presence of a chemist helps a great deal. He is indispensable, especially where large quantities of chemicals are used. By his training and experience he regulates the desired chemicals needed. He also tests the various products to meet the requirements of food laws. He is particularly useful in places where products are adulterated. The skillful chemist is not only able to imitate the natural colors, but the taste also. As long as the people are satisfied with food products containing more or less preservative, the chemist is all well in his place. Today we can prove that no preservative need be added, nor do people cherish adulterated food.



STERILIZING, LABELING AND PACKING.

It is found that spoiling is caused by bacteria, mold or fungi that are invisible to the naked eye. To demonstrate not only their presence but to prove that these bacteria, etc., are the causative agents of disease producing vegetables, fruits, etc., requires a microscopist.

Owing to the high magnifying power of a microscope, these little bacteria are detected. Some bacteria if magnified from four to twelve hundred times their own size will be as big as a fine pencil point. There are some germs that cannot be seen even with the most powerful lenses.

Here, again, the trouble with a microscopist is that the detection of the presence or absence of bacteria is not always a matter of importance. There are a great deal of useful bacteria—that sour milk, vinegar, kraut, etc. We are interested in bacteria as far as their relations in producing diseases. This requires a trained bacteriologist, who has spent years in that line.

To find the causative agents of human, of animal and of vegetable diseases has always been a great delight to me. I am particularly interested in our food producing cereals, fruits and vegetables, which are subject to destruction by parasites.

My past experience has taught me that it is of no use to examine bacteria in the final product while in the factory. I had to direct my attention to ascertain where the underlying cause of spoiling was and wherever possible to prevent it. The government permits the presence of 25,000,000 bacteria in a cubic centimeter of fifteen drops of liquid food. Not infrequently five or six hundred million are not uncommon.

I contend, however, that the presence of living bacteria in smaller numbers are more objectionable than larger quantities of dead bacteria, or molds which are only conspicuous by their presence. Living bacteria will not only multiply their number and produce poisonous substances, but will continue to decompose the remaining food products.

My first inquiry was in the tomato fields. Of several hundred acres only a few were carefully taken care of. The majority of them were in thick clusters mixed with weeds. When they were lifted up, the ground underneath was wet and moldy. Two or three tomatoes on each vine were completely decayed and full of molds. This acted as a starter for the rest. In several places, one-half of the tomatoes were unfit to be used before they were ripe. I asked some of the owners to remove the diseased fruit before the entire crop becomes spoiled. "There is too much work attached to it," is the usual answer. In order that the sun could dry the damp and moldy ground, I asked that the vines be turned over. The same answer was received. Some merely looked at me as if to ask the sanity of it.

There are always a few people in a community who are more progressive than their neighbors. These cleared the weeds from their tomato field as much as possible and removed diseased tomatoes before they damaged the rest. They were well paid for it in the end. The crop was better looking and doubled that of their neighbors. In the neglected fields, one-half of the crop rotted, the remainder was received in an unsound condition at the factory.

I asked the firm to pay the farmers for the spoiled tomatoes as well as for the good ones, providing they would keep them separate. The early run of tomatoes were far from desirable. Nearly half a dozen in each crate was entirely spoiled, while a dozen or more were practically unfit for use. This meant the loss of money paid for goods and unfit for use. Besides, catsup made from partly spoiled tomatoes cannot have the rich color of those made from healthy and ripe fruit. Furthermore, sterilization is usually not effective, and the product after it stands for some time readily gets spoiled, and is liable to be seized and condemned by various food departments as unfit for food materials.



PEELING THE STEAM WASHED TOMATOES.

As soon as the bad tomatoes were removed on the field, succeeding lots brought to the factory showed an improvement of about 75 per cent. There were very few to be thrown out at the factory, and naturally, fewer bacteria were present in the final



MAKING READY FOR WASHING AND SCALDING.

product. Having completed this task, I looked about the factory itself. Spore bearing bacteria were found in places where the tomatoes pass through while being prepared. They were also present where they could easily gain access in cranes, kettles, etc., by the least disturbance. Spores are in the bodies of bacteria or fungi; they are methods of protection against unfavorable seasons. They are able to resist heat or cold. In order to destroy these spores it requires boiling temperature for one hour for three consecutive days.

No wonder why the bacteria are found a few months later, after the product has been processed. Those bacteria that have spores in them, survive the heat they have been subjected to. The longer such a product is kept the more bacteria will be present. In order to remove these, I insisted on strict cleanliness. The place was frequently cleaned and washed in hot water. Cans that were not washed at all before were sterilized in live steam. Special attention was paid to the cleaning of bottles and of processing or sterilizing the final product.

I must give credit to the Frazier Packing Company in carrying out all my suggestions. They seemed to realize that money spent now will be a gain in the future. If a part of their catsup be found unfit as a food product by health authorities they would lose time, money and their reputation. An ounce of prevention is worth a pound of cure. This seems to be true everywhere. However, some people are fifty years behind the times.

I will now describe briefly the methods of preparing tomatoes for canning, catsup, chili sauce and pulp.

As soon as the tomatoes are brought to the factory they are placed on a movable wire belt. Formerly they used to pass without inspection, but I insisted on having men remove any partially diseased tomato. A tomato that looked half diseased to the naked eye showed the rest to be likewise when examined under the microscope. There is no gain in saving a small part of the tomato; it is only a source for distributing molds among the sound products. By this movable belt the tomatoes enter a worm like coil, where they are rotated in hot water, while they pass through to the other side; hot jets of steam remove any adherent particles of dust, molds, etc. On the other side they fall into buckets which are placed on a merry-go-round to be distributed to cleaners. The skins are removed as well as any spot that is diseased. From there it is placed in cans, which are placed in a steam chamber, the floor of which is made of geared wheels, that propel the cans in a zig-zag line, until they emerge at the other end. This method gives plenty of time to raise the contents to boiling point. Each can passes into an automatic machine that puts on and seals the covers. No soldering is used in this process. The cans are then sterilized in large retorts for thirty minutes. They are then ready to be placed in the storage room. For catsup the tomatoes are treated as for canning; they are selected, washed, steamed, but not peeled. After the last named operation they enter a crusher. The juice or pulp passes up into kettles. The objection of passing the tomatoes directly in the crusher is that the pulp enters the tanks or kettles cool. To improve this method the tomatoes as they come out of the washer pass up by means of a movable elevator into a tank where they are kept hot in steam. From there they enter the crushers without cooling. In this way the pulp reaches the kettles hot.

The skins and seeds pass out from the crushers, and by means of movable elevators are piled into wagons and hauled into the fields for fertilizing material. There are some manufacturers who utilize this waste product, which is saved by packing it in barrels until enough accumulates to be made into soap, chili sauce, etc. A profitable way of using up garbage.

When the kettles are filled with the tomato juice to the desired amount, live steam is allowed to enter by means of coils, or directly into the kettles. The pulp or tomato juice contains a great quantity of water, and in order to reach a certain thickness it is allowed to evaporate while in the boiling kettles. During this time salt, sugar and various spices are added to give the desired flavor. When the boiling is complete, to remove coarse particles, the catsup passes down through a fine strainer and then into iron pipes lined with procelain. From there it is allowed to fill up a box, the bottom of which has about twenty-four automatic faucets. A lever is thrown down and the above number of bottles are filled up at one time. They are corked, collected in iron trays and sterilized from a half to three-quarters of an hour at nearly boiling temperature. The bottles are removed, and while hot, labels are put on by an automatic machine. They are packed in boxes and ready for shipment.

During the busy season, when the hundreds of wagon loads of tomatoes are waiting to be unloaded, there is no time to make catsup, because a great deal of time is taken up by bottling. The tomatoes are then assorted, washed, crushed to make tomato juice or pulp, which are filled in cans. When time permits they are emptied, reboiled and made into catsup.



CLEANING AND BOTTLING ROOM.

Nation Wide Crusade for Clean Milk

Food Control Officials Working Hard for Better Milk

In practically every state in the union the state and local health officials are making an effort to improve the milk supply. It is only recently that there has been a real awakening to the fact that milk is one of the greatest sources of danger among farm products. Particularly are the young children affected by poor milk. This of course has been known for a long time, but there have been so many obstacles in the way of bettering the supply that food officials have found the task of milk improvement a very serious one. Recently there has been shown more of a disposition to go to the dairy to work an improvement. Better cows, better stables, cleaner handling and proper cooling have been demanded, with excellent results.

New York has been dealing with the milk problem in a serious way for years, and is just now getting the benefit of its work. Writing on this subject in the Chicago *Daily News,* F. J. Haskin says: There was established in the city of New York in 1907 a committee known as the New York milk committee. It was organized by the Association for the Improvement of the Condition of the Poor, and started out mainly to improve the character of the milk fed to babies of the metropolis. Immediately after taking up its work the committee found that a larger and more far-reaching problem confronted it—that of improving the nation's supply of milk. The work it has accomplished in that direction constitutes one of the most inspiring achievements in sanitary progress the country has witnessed.

The first step taken by the milk committee was to demontrate the value of supplying wholesale milk and education in the care of babies to mothers through milk stations. To this end it organized the committee for the reduction of infant mortality, for the purpose of uniting all the babies' welfare activities in New York City. Through its efforts the 150 agencies dealing with babies' interests in New York were given a clearing house for their labors, and a half million pieces of educational literature a year are now being distributed to tenement mothers. Out of 1,350 babies born alive and assisted through the first month of their lives by the nurses and doctors of the committee, only thirty-seven died, which is less than one-third as many as died in the homes of the unassisted.

As soon as the work of demonstrating the possibilities of a proper baby saving campaign was well on its feet, the milk committee took up another line of endeavor. It had already proved the value of a proper milk supply, and now it wanted to prove that such a milk supply was possible. To this end it decided to show the farmer how he could produce good milk at little or no increase in cost. So the Dairy Demonstration Company was organized. A dairy at Homer, N. Y., was purchased and rehabilitated for handling the milk supplied by the farmers of that vicinity. They were paid a half cent more a quart for milk from tuberculin tested cows, a fourth of a cent more for milk having a low percentage of bacteria and a fourth of a cent more for milk rich in butter fat. The farmers were assured that good methods were more important than high priced equipment. All pails and cans were sterilized at the dairy for the farmers, and all they had to do was to put the milk into them and bring it to the dairy. The result of this attempt at scientific dairying was that thirty-five farmers were converted from skeptics into enthusiastic supporters of the clean milk crusade.

Having proved the possibilities of clean milk in the care of babies and the ease with which the co-operation of farmers in producing clean milk may be enlisted, the next step was to create a commission made up of the best authorities on milk in the United States, whose duty it would be to fix a standard of milk for such states and municipalities as might see fit to accept it. This commission was organized in 1911, and has had five meetings. In making up its membership the names of over 200 men of prominence in medicine, sanitation, public health and laboratory work, especially those having a national reputation in milk matters, were considered. Among the seventeen commissioners finally secured to serve are: Dr. W. A. Evans, professor of preventive medicine in Northwestern Uuiversity; Dr. John Anderson, director hygienic laboratory, United States public health service; Dr. A. D. Melvin, chief United States Bureau of Animal Industry, and Dr. John S. Fulton, secretary of the International Congress of Hygiene and Demography.

The commission holds that milk should be graded according to intelligent standards, just as are wheat, corn, oats, cattle and other commodities. The poet, Lamb, was asked upon one occasion what was necessary to the enjoyment of sausages, and he replied, "Confidence." The milk commission holds that confidence is an asset of the highest value in the milk business.

The milk produced in this country for market purposes is divided into three grades by the commission. Grade "A" from cows free from disease as determined by tuberculin tests and physical examinations made by qualified veterinarians, handled by persons free from disease as determined by a qualified physician and produced under sanitary conditions such that the bacterial count shall not exceed 10,000 to the cubic centimeter. If pasteurized, the tuberculin test and medical inspection may be omitted. Grade "B" milk, raw, must come from healthy cows, and must not contain more than 1,000,000 bacteria to the cubic centimeter. Grade "C" milk includes all that has more than 1,000,000 bacteria to the cubic centimeter, and is to be used only for cooking purposes.

Pasteurized milk must be heated to a minimum temperature of 140 degrees. Fahrenheit, for at least twenty minutes, and the commission recommends that automatic recording instruments should be required for making record sheets for the health officers. It is recommended that all milk shall be dated so that the consumer may know the day it left the cow's udder.

The bacterial count method of standardizing milk is used because it furnishes a good check on the presence of dirt, underrefrigeration and age. It has not been found, however, that this determines the danger of milk in every instance. To illustrate: Here is a pail of milk that shows 1,000,000 bacteria to the cubic centimeter, and here is another that shows only 10,000. But the former may be only the result of careless handling, while the latter may consist largely of typhoid germs, arising from the use of water containing these germs for washing milk containers. Medical and sanitary inspection and Pasteurization are the best methods of protection against human contagion in milk.

The full report of the commission is a most interesting one and lays down the rules whereby the milk supply of a community may be protected and the health of the urban population of the nation thereby materially enhanced. A list of requirements has been adopted which the commission unanimously considers absolutely essential to a proper regulation of a municipal milk supply. Then there is also a list of recommendations which sets forth the things which it is advisable to do, but which depend principally upon the public sentiment of the community as to whether or not they shall be made law.

Altogether, the report of the commission constitutes the most advanced step toward a wholesome national milk supply that has yet been taken. It has been received with approval by sanitarians everywhere, and it will undoubtedly prove the basis upon which the laws and ordinances of the state and municipalities of the future will be enacted.

Few people realize the importance of a wholesome milk supply. One-sixth of all the food the average man eats is milk or its derivatives. Nothing that passes his lips is so susceptible to contagion and dirt as the milk he uses. The contagion usually comes from the human intestinal tract, while the dirt is made up mainly of tiny particles of cow manure. The major portion of the milk supply of the country comes from the small farm, where the milk business is merely a by-product, and the problem of getting good milk is largely one of paying more for clean milk than for unclean milk. The effort of the milk commission has been to frame regulations that will not drive the small milk seller out of business, but which will, nevertheless, teach him to regard the welfare of the people in the city to whom his milk goes. It is realized that all this means most of all a campaign of education.

IMPROVED MILK SUPPLY.

W. B. Barney, state dairy and food commissioner of Iowa, and E. W. Van Duyn, commissioner of weights and measures visited Burlington. These men are getting in touch with the grocers and other dealers who handle foodstuffs for the purpose of explaining the new laws. They met a number of the local dealers.

Regarding the milk situation, Mr. Barney said conditions had been improved 5 per cent over the state. Sharp inspection of dairies has resulted in more sanitary arrangements. Mr. Barney has owned a big farm near Audubon for thirty years. He was a pioneer in the introduction of fine dairy cattle in northern Iowa. What he has to say regarding southern Iowa is therefore of the greatest importance because he speaks as an expert.

He believes, from practically every standpoint, southern Iowa ought to lead the country in every branch of the dairying industry, instead of trailing along behind the northern part of Iowa. Alfalfa can more readily be grown here than in the north. Land values would show a marked increase with the additional fertilization of the soil from dairying.

Iowa will produce over 100,000,000 pounds of creamery butter this year. The average production of butter fat per cow is 140 pounds per annum. Wisconsin's average is around 200. The Iowa farmers are losing the difference between these figures.

Mr. Barney said that the pure food laws, strictly enforced, have resulted in the almost complete elimination of deleterious products. Right now hard work is being done to get the dealers posted on the new weights and measures law, the buying and selling of all dry products by weight, berries being excepted.

Another matter being given constant attention is the enforcement of the law demanding sanitary handling of foodstuffs.

Mr. Barney spoke in the highest terms of Senator La Monte Cowles of Burlington, stating the pure food department had no better friend than Senator Cowles, who is always ready to aid in obtaining improved conditions for the consumers, and who has shown a live interest in the pure food work.

The commissioner stated everything possible is being done to do away with the bad egg nuisance. Already this year 150 Iowa farmers have been prosecuted for selling rotten eggs. The dealers, with but few exceptions, are not violating the law by passing off poor eggs on their customers.

There is a spirit existing of cleaning up, of keeping sanitary stores and using clean methods in handling foodstuffs.

Mr. Barney said particular stress ought to be laid on improving the dairy herds of southern Iowa. As a practical dairyman he feels the farmers of this part of the state ought to weed out their poor stock and introduce a better grade of dairy cattle.

"If creameries were as numerous in southern Iowa as they are in northern Iowa or in southern Wisconsin, your lands would jump up at least 50 per cent more in value," Mr. Barney said. "More silos must be built, alfalfa planted and the soil will be enriched from the cattle.

"When I built the first silo thirty years ago in my section of the state I was laughed at. Now silos are common in that part of Iowa, and I hope to see them equally as numerous in southern Iowa. You have the blue grass, better climatic advantages and other things to make this the ideal dairying territory of the west."

HEALTH OFFICIAL CLOSES DAIRY.

Frank M. McClelland, chairman of the health commission of Webster Groves, Mo., ordered the dairy of William Bailey, on the old Drummond farm, a mile from Webster Groves, closed following a chemical examination of spring water used on the place. He said the water was unfit for drinking or household use. Three cases of typhoid fever among those living on the farm, coupled with a seeming epidemic of typhoid in Webster Groves, where the greater portion of the milk went, caused the order.

Bailey, when he heard the result of the test, ordered a milk supply thrown away.

In his report Dr. R. M. Kaiser of Washington University says that water contains a great percentage of organic matter. No special hunt was made for the typhoid germs. A more thorough test will determine whether the germs are present.

Soon after the receipt of the results of the tests workmen fenced in the condemned spring and preparations for the piping of county water to the farm were made.

McClelland said there is nothing insanitary connected with the running of the dairy at Drummond farm, everything being absolutely clean, and if the typhoid had spread from there it had only come from the water from the spring, which was used in washing the cans. The authorities are having water from other dairies analyzed.

STATE WIDE CRUSADE.

A marked improvement in the sanitary conditions surrounding the dairies of Georgia which furnish Atlanta's milk supply is expected to result from the statewide pure milk crusade, inaugurated by the state department of agriculture.

Inspectors have visited and investigated carefully the dairies in and around the city and in many instances they have, it is said, found conditions far below the standard required by law. Some of the milk sold in Atlanta is said to be dirty and to contain disease germs.

The pure milk crusade does not stop with an analysis of the milk, but it takes into consideration the sanitary conditions of the dairies and the health of the dairy cows as well. Wherever a dairy is found to be deficient its owner is summoned to the capitol and the state's chemists and bacteriologists explain to the owner where his trouble lies. He is given an opportunity to remedy the objectionable conditions and if he does not do so he is prosecuted for violating the pure food laws.

SPREADING DISEASE.

A singular case of disease propagation has been brought to light at DeFuniak Springs in Florida where diphtheria has prevailed and where state board of health officers put in much time in an effort to check the spread of the disease, finally succeeding, but were at a loss to understand how so many cases developed in various portions of the city at the same time. Some time ago a dairyman of DeFuniak went to Chicago, where he visited for a short time. On his return he complained of a very sore throat, but took up his duties of delivering milk to his customers. Within ten days thereafter diphtheria cases developed in many sections of the town, but the milkman's connection with the cases was never suspicioned until a day or two ago when someone recalled that he suffered with a sore throat on his return from Chicago. A state board of health official then called on the man and swabbed out his throat, sending the swab to the state bacteriological laboratory in Pensacola, where many diphtheria germs were discovered. This proved to the state health officials that even though a patient is apparently well that he can spread the disease.

SOLD TUBERCULAR CATTLE.

Charged with violating the state livestock sanitary laws, Ed Herron of Grand Rapids, Mich., was arraigned before Justice Creswell and paid the maximum fine, $100 and costs. Herron said he would appeal. The case is out of the ordinary and the charge is preferred by W. R. Harper, secretary of the livestock sanitary commission. Herron is alleged to have sold cattle for beef with the knowledge that the two cows showed signs of being infected with tuberculosis. The cows are alleged to have been sold to a person engaged in the dairy business and who furnishes butter in the city. The cows instead of being slaughtered were used as dairy stock. It is alleged that the cows in question had been tested by Dr. K. H. Paap and two reactions shown. With knowledge of this condition, it is alleged, Herron sold the cattle. Mr. Harper declares this is but the beginning of a campaign against persons who sell infected cattle.

DAIRIES ARE IMPROVING.

Although Shreveport, La., dairies still are far from what is desired, much improvement has been made in recent months, according to the report of the State Board of Health inspectors who visited those dairies. The inspection was made on the occasion of the recent visit of the board's train to Shreveport. Four of the dairies score good, seventeen fair and two poor. On first inspection only one scored as high as poor. The others all were bad.

President Dowling of the State Board of Health forwarded copies of the report to the health officers in Shreveport.

William T. Hulscher, state food inspector, and a resident of Battle Creek, has been made defendant in a suit by the Shepard Grain, Bean & Milling Company of Charlotte. They ask $50,000 damages in a suit filed in circuit court. The claim is made that Hulcher spread the report that the company's flour, some in sacks, was short weight.

Warnings Against Non-Scientific Diet Systems

THE U. S. Department of Agriculture has recently had called to its attention, by letters from people all over the country, serious misstatements as to the effects of foods or certain diets recommended by self-styled "experts in dietetics." As a result of these letters, the Department specialists have secured the literature and recommendations of a number of these people and have made a careful study of the things they recommended as diets.

The specialists of the Department have issued the following statement covering this matter:

In view of the widespread literature and advice of so-called "diet experts," it seems desirable to warn people against adopting the dietary recommendations of those without real scientific standing in the community. Some of the advocates of freak diets are sincere, but are themselves deluded; while others are fakers, who seek to make monetary gain by advising peculiar systems of diet. Neither class can offer trustworthy advice. In most of the recommendations of these self-established "experts," there is hardly a shadow of reason, though they may seem plausible. One of their methods of reasoning is to use isolated and often unrelated facts of science as evidence that their peculiar system is of value. That is, they generally start out with a certain idea, and then strive to prove that they are right by seeking data which seem to establish their theory; but they completely ignore statements in current and historical scientific literature which would negative their contentions. In other words, they completely overlook or do not see the importance of discoveries by scientists which go counter to what they want to believe. It would be easy, following this same system of taking isolated facts away from their context, to produce just as much of the same kind of evidence that these "food experts" are wrong as they adduce to prove that they are right. In neither case, however, would the method lead to real scientific conclusions.

As an example of their methods of reasoning can be cited their use of the fact that someone tried to raise rabbits wholly on cooked food. The rabbits did not thrive on such a ration, nor could it be expected that they would on a diet purely artificial to such animals. From this the "pseudo" expert draws the deduction that because the rabbits could not live wholly on cooked food, human beings should confine themselves to raw food. No such deduction is warranted. Raw food is natural to rabbits, and this is perhaps a fortunate provision of nature, because the average rabbit would probably have a good deal of trouble lighting a fire or a gas stove to cook food; but it does not follow that man, who has proved cooked food wholesome by uncounted centuries of use, should give it up because of someone's theory.

Many of these so-called diet systems lay great emphasis on raw foods. Now, there is no objection to anyone's eating raw food if he likes it, or finds after experiment that it agrees with him, provided it is of good quality, free from contamination, and wholesome. The truth of the matter is, however, that man's chances of health are best when he eats with moderation a diet made up of clean, wholesome, ordinary foods, well prepared in the usual ways. Such a diet will include some articles to be cooked and others to be eaten raw, such as bread, cereals, fruits, vegetables, meat, fish, milk, butter, cheese, eggs, etc. These articles should be of good quality, free from dirt (visible and invisible) and adulteration, and well prepared.

As a general proposition, raw food is not cleaner than cooked foods. Proper cooking sterilizes foods, and so renders innocuous pathogenic bacteria and other organisms possibly harmful. Raw foods have to be very carefully washed and cleaned before eating, and as a general rule simple washing, while it will get rid of most of the dirt, will not remove all the bacteria, insect eggs, spores of fungi, etc., that may adhere to them. If the systems of pseudo-reasoning followed by some of these diet experts were logical, it would be possible to draw the conclusion that no one should eat lettuce or other salads, or raw vegetables and fruits. This would not be warranted by true science.

In some of the literature circulated by the advocates of raw food, their correspondents are urged not to eat animal foods because they say meat is filled with bacteria. This is not true. The surface of meat is not sterile, but the interior is, except in rare cases. We do not eat raw meat, except dried beef, or something similar, but cause it to be cooked, and this sterilizes it. In most cases where people have suffered, or think that they suffer, from eating meat or any other normal article of diet, the trouble lies not with the actual article but either in the imagination of the consumer or in the fact that the food has not been kept clean, or properly prepared and properly handled after it is cooked.

Several of these food experts base their argument for a raw food or other specialized diet on the theory that raw food supplies the body with necessary enzyms; or that a certain food, such as whole wheat bread, supplies lime or some other special substance. If the American people lived wholly on cooked food and ate no fruit or drank no raw milk, it might be necessary to advise them to eat some foods raw, for when clean and of good quality, such things are wholesome. The body, however, normally supplies all the ferments (enzyms) it requires, and the average mixed diets of Americans give them all the raw food that they require. Similarly, if the American people ate nothing but wheat, it might be necessary to advise them to eat whole wheat rather than fine wheat flour in order to get some of the substances excluded from the flour by bolting. Recent investigations indicate that there is a valuable substance in bran, which is lacking in the interior of the wheat kernel. This substance, called by some Vitamin, is, however, present in many other foods, and there is every reason to believe that an ordinary mixed diet supplies all of such material which the body needs. Whole wheat bread is wholesome and palatable and affords an easy way of securing variety in the diet, which is desirable as well as pleasing. The average American who usually gets plenty of the food constituents he needs in his other articles of diet, need not feel compelled to eat whole wheat bread exclusively, simply to supply one peculiar element.

In the case of the people who decry polished rice, most of them base their assumption that Americans ought not to eat it, on investigations made in Oriental countries where rice forms one of the chief staples of a very limited diet, and practically the only starchy food. People who live mainly on rice might be expected to need certain elements that are in the part of the rice that is polished off. Americans do not live on a diet limited to rice; there is, therefore, no logical reason why they should not eat polished rice if they like it, or should not use the unpolished rice if they prefer it. Both are wholesome and valuable.

If the deductions of many food faddists accepted as facts were really operative, it would be difficult to explain how the human race had survived. The race should have expired very soon after man had progressed enough in intelligence to begin to exercise any choice in his diet and to cook his food. The contrary holds true, as civilization had advanced from the time when man began to cook and otherwise prepare his food.

Many of the people who offer dietetic advice for sale undertake to recommend a diet that will cure diseases without ever seeing the patient. The average man talking about his own illnesses frequently imagines symptoms, or describes them so inaccurately that they are not absolute guides to the physician. In many cases, incipient serious ailments or local troubles which give no indication of their presence by pain or discomfort, are discovered by the physician in his laboratory, and relief can be given them which could not be promised later. Very few people indeed would be able to describe their symptoms in words so accurately that the conscientious physician would feel safe in making a positive diagnosis or laying down a method of treatment. Many of these sellers of food information, however, undertake to diagnose trouble and advise a complete remedy purely on the patient's own description of what he believes is a serious condition.

In many cases, people on beginning a radically new diet, whether it has direct curative value or not, gain or think they gain a benefit. Any marked change in diet or cooking would produce the same effect, because change itself is often a benefit. The man or woman undertakes the new diet feeling convinced that it will help some real or fancied ailment, and expects results so strongly that imagination supplies them. Some of the cases so benefited are simply transient forms of digestive disturbances. Most of these

feelings of discomfort quickly pass by themselves, if we do not dwell upon them and worry about them; but if the person tries a new diet, he is very apt to attribute all improvement to that diet, whether it has any direct bearing on the case or not. In cases of serious digestive disturbances, sufferers should consult a physician of known ability and known standing in their community. To submit such cases for treatment by mail is as foolish as it would be for a man having a complicated and highly specialized business trouble to ask someone who had never seen his factory, and knew nothing about the business except the data he could supply in answer to a set of questions, to supply him with a positive remedy at long-distance.

Much of the advice on diet which has passed from individual to individual, and much of the supposed scientific advice now being sold for a price by some of the food advisers, is really little more than folk lore. A great many of the statements which are used as arguments by the experts for their diets have been traced by the Government specialists, and found to come from works on diet written so long ago as to be no longer considered of value except to the student of the history of dietetics, or else they have been separated from qualifying statements which would make the interpretation given them by the commercial users wholly unwarranted.

These circulars of misinformation about diet find their prey principally among people who are always fancying that they have some complaint. If people remain in good physical condition year after year, and observe no marked change in weight, seem in good health and spirits, and are eating any simple and normal mixed diet, they have no need to worry about their food.

People can expect to be lighter in weight in summer than in winter. As a person grows older he should begin to cut down the amount he eats, and depend on a less complex and simpler diet. It is often said that when a person passes forty, he begins to need a different diet. The reason given is that he does not exercise so energtically as he did, and consequently does not need the same amount and kind of food that was required to keep up his energy for more active physical work.

If you like raw food better than anything else, eat it. If you like bread and milk twice a day, eat it. The main thing, as one grows older, is to eat in moderation and then, as always, to see that what you eat is clean and that the cooked food you eat is originally in good condition and that it is well cooked. If you eat raw vegetables and fruits and raw milk, take precautions to see that they are clean before they enter your system. If something really disagrees with you, and the fault lies actually with the article rather than with the method by which it has been kept or cooked, stop eating that kind of food. If you experience serious discomfort which persists, consult the best physician you can discover.

As a general proposition, be wary of people who offer to give you advice or to cure you without ever seeing you. Finally, bear in mind that each human body has individual characteristics, and that a diet which admirably suits one man who lives in a certain location and does a certain kind of work may not be adapted to another individual living in a different climate and doing a different kind of work.

No advice is better than the old "Moderation in all things."

GOAT'S MILK SHOULD BE BOILED.

Scientists of the Bureau of Animal Industry have compiled a bulletin which is of practical interest to all who raise goats and to such invalids as have been prescribed goat's milk as a diet.

Proofs have conclusively established that the transmission of a fever known variously as "Malta," "mountain," "slow typhoid" or by certain other designations to man is accomplished by the milk of infected goats.

Careful observation in Texas and New Mexico show that the disease has always made its appearance among people connected with goat raising. Entire families have been taken sick with it on goat ranches. The sickness appears usually after the kidding season, during the months of April, May and June, when the people are in closer contact with the goats.

Observations have also shown that just over the border in Mexico goat herders are not nearly so liable to the disease. Conclusions have been drawn that this is not due to any natural immunity, but to the fact that the Mexicans always boil the milk before drinking it, while the Americans use it raw.

The general opinion has prevailed that the United States is free from Malta fever and that the disease has only occurred through importations. However, it now seems evident that the Malta fever has existed in Texas and New Mexico for at least 25 years. The fever takes its name from Great Britain's island in the Mediterranean, where the disease has been exceedingly prevalent among British soldiers and sailors. Its occurrence in tropical and subtropical localities has been noted in almost every country. A number of cases have been reported among our soldiers who had just returned from the Philippine Islands.

Pasteurization of infected milk for twenty minutes at 145° F. is sufficient to destroy the organism which transmits the disease. Therefore, milk pasteurized for the destruction of typhoid and tuberculosis germs will also be free from the Malta fever germ.

The symptoms in human beings are usually pronounced and give rise to a more or less severe affection. The most striking symptom is an attack of fever with periods of normal temperatures. The duration of these periods varies considerably during the disease. The fever may be remittent or intermittent; it may be continuously high or low, and at all stages of the disease the type of the fever may change. It may be very acute from the onset, the fever setting in with chills and rise of temperature associated with severe headache and pain in the back, and a general ill feeling. The pulse and respirations are generally affected in accordance with the height of the fever. The course of the disease may extend for from six weeks up to a year and cases have even been observed in which relapses have occurred for three years. In human beings the mortality is estimated at 3 per cent.

In animals the course of the disease always appears to be protracted. Cases have been noted in goats that extended over a period of more than a year. The prognosis in animals is always favorable as far as the health is concerned. But although the disease has no active effect on goats, its eradication must be considered for the public health, and it is particularly important since there has been a tendency recently among physicians to advise the drinking of goat's milk for children and invalids.

MEDICAL MILK COMMISSIONS.

The first bulletin in the new departmental series of the U. S. Department of Agriculture is a contribution from the Bureau of Animal Industry entitled, Medical Milk Commissions and Certified Milk; this is a revision of a previous bulletin on the same subject.

The organization and objects of the first milk commission are described and the origin and meaning of "certified milk" are set forth. The word "certified" has been registered in the U. S. patent office and may only be used by a duly organized medical milk commission.

The first milk commission was organized in 1893. Since that time over 60 commissions have been established, but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk and the daily production is nearly 25,000 gallons, an increase of 300 per cent in five years. While this seems a remarkable increase, it should be remembered that only one-half of 1 per cent of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremitting attention to details.

In 1907 the American Association of American Milk Commissions was organized. The methods and standards for the production and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin.

It costs the Iowa Dairy Company, one of the largest in the state, $10 for keeping an unclean building and unclean machinery in the preparation of its milk for the market. Judge Hubert Utterback assessed this amount when officers of the firm admitted the truth of the charges filed by W. B. Barney, state food commissioner.

United States Department of Agriculture

OFFICE OF THE SECRETARY.

FOOD INSPECTION DECISION NO. 152.

The Board of Food and Drug Inspection is of the opinion that brandy is the alcoholic distillate obtained solely from the fermented juice of fruit, distilled under such conditions that the characteristic bouquet, or volatile flavoring and aromatic principles, is retained in the distillate.

Grape brandy is the distillate obtained from grape wine under these conditions.

Apple, peach and other fruit brandies are similarly prepared from the fermented juices of the respective fruits.

The board is of the further opinion that so-called brandy prepared from grain, potato or other form of industrial alcohol, or from alcohol obtained from the by-products of wine manufacture, mixed with more or less true brandy or other flavoring material, is adulterated and misbranded unless labeled to indicate its true composition.

CARL L. ALSBERG,
A. S. MITCHELL,
H. M. LOOMIS,
Board of Food and Drug Inspection.

Approved:
B. T. GALLOWAY,
Acting Secretary of Agriculture.
Washington, D. C., August 29, 1913.

(Federal Court.) A manufacturer of dry gin may label it "London Dry Gin," though as a matter of fact it is not made in London. The court held that there was no violation of the section of the Food and Drug Act applying to misbranding, as such a name has reference to a distinct kind of gin which need not necessarily be made in London. United States v. Thirty-six Bottles Dry Gin. 205 Fed. 111.

(Federal Court.) The purpose of the Pure Food Act is to protect purchasers from injurious deceits and to protect the health of the people from the sale of normally wholesome articles to which have been added substances poisonous or detrimental to health.—Hall-Baker Grain Co. v. United States (198 Fed. 614).

(Federal Court.) Certain carbonated white wine contained in bottles and packages dressed and marked to represent champagne and sold in interstate commerce for champagne, though not actually designated as "Champagne," held misbranded under the Federal Food and Drug Act.—United States vs. Five Cases of Champagne (205 Fed. 817).

(Federal.) The condition of a product in the hands of a consumer is the place and time to test its fitness for food.—United States v. Four Hundred and Forty-three Cans of Frozen Eggs (113 C. C. A. 457).

(Alabama.) A state may impose a license tax on canned oysters shipped into the state and such tax is not invalid as an interference with interstate commerce, for such property ceases to be a subject of interstate commerce upon reaching its destination and coming to rest, and so is subject to taxation even though disposed of in the original package.—Mangeldorf v. State. 62 So. 373.

(California.) A state may without offending the Federal Commerce Laws regulate or control the traffic in intoxicating liquors within its own borders to the extent of prohibiting the soliciting of orders within the state for purchase of liquors from outside the state.—Ex Parte Anixter (134 Pac. 193).

(Louisiana.) The State Board of Health may enjoin the manufacture of food under such conditions as to render its use dangerous to the public health. It has jurisdiction over matters of local sanitation, which cannot be efficiently regulated by local boards, and the statute gives the board jurisdiction over the manufacture, sale and inspection of foods within the state in so far as the same may affect the public health.—Board of Health v. Susslin (61 So. 661).

(Massachusetts.) The State Legislature may enact statutes as to weight in avoidupois of potatoes, grains and other articles commonly sold by dry measure, Congress not having legislated under its constitutional authority to fix the standard of weights and measures.—Commonwealth v. Gussman (102 N. E. 342).

(Michigan.) It is competent for the legislature, under the police power, to provide for the protection of the public health by making it an offense punishable by fine and imprisonment to sell adulterated food or drink, irrespective of the seller's knowledge of the adulteration.—People v. Snowberger (113 Mich. 86).

(Nebraska.) Where syrup is put up by a wholesaler and sold under a label stating that each half gallon can contain a brand composed of cane syrup and maple syrup, there must be a statement showing the proportion of each.—Paxton v. Gallagher Co. (140 N. W. 167).

(New Jersey.) A newspaper may comment on the condition of a food manufacturing plant and the method used in conducting the business. This the law looks upon as fair comment. However, newspapers have no special privileges which enable them to publish falsehoods with reference to the condition of an individual's business, merely because they believe them to be true.—Schwartz Brothers Co. v. Evening News (87 A. 148).

(New Jersey.) It is within the police power of the state to require slaughter houses to take out licenses and such a requirement cannot be said to interfere with the Interstate Commerce Laws simply because meat from such slaughter houses is intended for export.—Board of Health v. Schwartz (87 A. 147).

(New York.) The Agricultural Law which prohibits the manufacture of oleomargarine in imitation or resemblance of natural butter is a valid police regulation and prohibits a manufacturer from selecting ingredients in such a manner as to designedly make his product a closer imitation of natural butter.

The state can prevent the sale of oleomargarine as butter, but not as oleomargarine.—People v. Guiton (37 N. Y. S. 600).

(New York.) In a prosecution against a storekeeper for selling food on Sunday in contravention of the Sunday Laws, it was held that though the food was not eaten on the storekeeper's premises, yet it was a meal and was therefore allowable under the section of the act allowing restaurateurs, caterers and purveyors of food products to serve and sell meals on Sunday.—People ex rel Goodyear v. Friedman (142 N. Y. S. 367).

(New York.) The Agricultural Law of New York defines skimmed milk as adulterated milk and prohibits the sale thereof except as such. Even though the milk may be sold in interstate commerce, still the act is not invalid, as an attempt to regulate the Federal Interstate Commerce Laws.—People v. Abramson (101 N. E. 849).

SEIZE TOMATO PULP.

As a result of the activity of Federal Pure Food and Drug Inspectors in bringing condemnation suits against tomato pulp coming into Cincinnati from certain canning concerns in Indiana and other points, there is a tomato pulp famine in that city. Thousands of cans of the pulp have been seized by federal officials as a result of suits filed in the local United States district court, and are now being held awaiting the decree of Judge Hollister as to whether the food is adulterated in violation of the federal pure food law, as alleged by the inspectors.

A prominent broker, having offices on East Second street, stated that he had commissions to purchase twelve carloads of tomato pulp from any packing house whose products

would pass the requirements of the pure food and drugs act. He declared that practically all of the tomato pulp which had been shipped to Cincinnati in the past few months is now in the hands of United States marshals, having been attached as a result of these suits.

The situation is becoming so strenuous for the packers that they have refused to ship any more of the pulp into Cincinnati until the present cases are decided. Those packers against whose products the condemnation suits were filed have secured permission from the local federal court to have chemical examinations made of samples of the goods under seizure, and it is understood that this step was taken by them in an effort to prove by chemical analysis that the pulp is not adulterated in violation of the pure food laws.

FRAUDULENT RADIOACTIVE WATERS.

The U. S. Department of Agriculture, through the Bureau of Chemistry, issued the following warning to the public in regard to the so-called radioactive mineral waters offered for sale in bottles:

"There are indications of the beginning of an attempt to perpetrate a great fraud on the American people through advertising certain mineral waters as possessing radioactivity. These waters, in some cases, are taken from springs, the waters of which as they come from the ground do possess certain radioactive properties. Examination of many of these waters by the department's specialists indicate that whatever radioactivity they possess at the spring is due almost entirely to radium emanation rather than to the presence in the water of any substance possessing radioactivity. These emanations in the form of gas quickly disappear from the water and as a result, after the water has been bottled a short time, it will possess practically no radioactivity. The belief long held by many people that some mineral waters used at the springs are more effective than when bottled has been explained by some authorities on the ground that the beneficial effect of these waters is due to radioactivity. As the radioactivity disappears soon after the water is taken from the spring, any effect due to the radioactivity must be lost in a short time. If the radioactivity of a water in a spring is 100, four days after bottling it will be only 50 and twelve days after bottling 10. In a month it will be practically nothing compared with the original radioactivity of the water at the spring. The public, therefore, is warned to regard with suspicion any water advertised as possessing radioactivity. As far as the Government's specialists have been able to ascertain, no bottled water, no matter how radioactive it may have been at the spring, retains this radioactivity for any length of time.

"The department is now investigating a number of the so-called radioactive waters with the object of securing evidence that can be made a basis of prosecution for misbranding. In the past before the Food and Drugs Act was enacted, a number of mineral waters made claim to curative properties which they did not possess and succeeded in creating a misplaced confidence on the part of the consumers. This was particularly true of a number of imported waters which were sold extensively in the United States with a statement on the bottle that they were wonderful or magical cures for all sorts of incurable or chronic ailments. The Treasury Department, acting in co-operation with the Department of Agriculture, now refuses admission to the country of foreign waters labeled so as to mislead consumers as to their real or curative properties. The department fears that unless the public is warned that the fraudulent trade in so-called radioactive waters will develop, just as the fraudulent trade in other mineral waters was developed to the point where people with strong imaginations will supply their bottlers with all sorts of testimonials asserting that these supposed radioactive waters have effected wonderful cures."

BAIT AN INERT MATERIAL.

That flour and other ingredients of insecticides which act as bait or food to attract the insects, but do not possess insecticidal properties are inert ingredients, has been established by a decision in a case brought against "Peterman's Roach Food," under the Insecticide Act of 1910. The question arose in the seizure of 30 dozen packages of "Peterman's Roach Food" in Baltimore, Maryland, on the allegation that they were misbranded.

The misbranding was alleged because the analysis showed the product to contain certain inert substances, such as wheat flour and other substances which in themselves do not prevent, destroy, repel or mitigate insects and the names and percentages of these inert substances were not stated on the label, nor in lieu thereof did the label state the names and percentage amounts of the ingredients having insecticidal properties and the total percentage of the inert ingredients.

The Calvert Drug Company of Baltimore in its answer to the libel stated that the inert substances were in the nature of food or bait attractive to such insects and necessary in the preparation to induce these insects to eat or take into their mouths the other substances which do destroy insects.

The court, after hearing the arguments, entered a decree condemning the goods libeled and seized as misbranded but provided that said goods should be released on condition that the claimants file a sufficient bond that they would not sell the goods until the names and percentage amounts of each and every inert ingredient in the roach food should be stated, or in lieu thereof, the correct names and percentage amounts of each and every ingredient having insecticidal properties and in addition thereto the total percentage of inert ingredients present should be stated on the packages.

SHIPPERS FINED FOR ADULTERATION.

Among the most recent notices of judgment issued by the U. S. Department of Agriculture against shippers of adulterated products in which the shippers were fined are the following:

1. Charles Bang of New York City was fined $25 for shipping a quantity of an article purporting to be spirits of turpentine into Connecticut. The product was labeled "Pure Spirits Turpentine." Adulteration was alleged because it was sold under a name recognized in the United States Pharmacopœia, namely, turpentine, but differed from the standard as determined by the test laid down in said Pharmacopœia in that it contained at least 4 per cent of mineral oil. Turpentine, according to the above authority, should not contain any mineral oil at all.

2. The Suffolk Drug Corporation, Suffolk, Va., was fined $50 for shipping into Michigan quantities of essence of cinnamon, essence of peppermint, and vanilla extract which were adulterated. Adulteration of these products was alleged because certain substances had been mixed and packed with them so as to injuriously affect their quality and strength.

3. The Amazon Vinegar & Pickling Works of Davenport, Iowa, were fined $10 and costs for shipping into Illinois a quantity of alleged cider vinegar which was adulterated and misbranded. Adulteration was alleged because the product consisted of a mixture of boiled cider and dilute acetic acid prepared in imitation of cider vinegar so that its quality was injuriously affected. Misbranding was also alleged because the product was labeled "cider vinegar" whereas it was an adulterated product, consisting wholly or in part of a mixture prepared in imitation of the genuine.

COLOR CONTAINING ARSENIC.

David and Solomon Katzenstein, doing business under the firm name of Star Extract Works, New York City, have been fined $50 each for shipping macaroni color adulterated with arsenic, according to a notice of judgment issued recently by the U. S. Department of Agriculture.

The adulterated macaroni color was shipped from New York into Missouri. It bore this label:

"Coal—Tar—Yellow Color—Macaroni Shade—Star Extract Works—Importers and Manufacturers of essential oils. Flavoring extracts and supplies, 205 Fulton St., New York."

Adulteration of the product was alleged because it was found to contain arsenic, which arsenic was not a preservative applied externally in preparation of the product for shipment but was added to the product as a poisonous and deleterious ingredient which might render the macaroni color injurious to health.

TOO MUCH ALCOHOL.

Notice of judgment, issued by the Department of Agriculture, states that Herman Friedman, Paducah, Ky., has pleaded guilty to the misbranding of a "Temperance Drink" called "Temperine," and has been fined $100 and costs. Purporting to be a temperance drink, it was found on analysis to contain 2.77 per cent, by volume, of alcohol—sufficient, it was claimed, to make it intoxicating.

The label stated that it contained less than one-half of one per cent of alcohol. The product was shipped from Kentucky into Illinois. The defendant traded under the name of A. M. Laevison & Co.

MISBRANDED LEMON OIL.

Before the disastrous earthquake in Sicily that destroyed the city of Messina, lemon oil cost about 75 cents a pound in this country. Now it costs about $5 a pound. The reason for this enormous advance is that nearly all the lemon oil used here is produced in Italy and the storms and the Sicilian earthquake destroyed the crop so completely that it has never recovered. The result has been that American dealers in lemon oil have made an extensive use of the oil residue after the best parts of the oil were used to make lemon extract.

This would be a legitimate proposition, as even this residue contains flavoring value, if it were correctly labeled. However, when the dealers label the residue as though it were the real product, a fraud is perpetrated on the public.

To make lemon extract the oil is shaken up with alcohol. This process uses up certain constituents of the oil and leaves certain dregs which if mixed up with inferior added products may be made to look like the original lemon oil. This interior product absolutely lacks certain valuable flavoring constituents which the original article contained. Certain dealers in this reinforced residue, besides misbranding it, have asked an advanced price for it, as though it were the real oil.

According to a notice of judgment just issued by the U. S. Department of Agriculture, a fine of $200 has been imposed on a shipper of misbranded lemon oil. Kimball Bros. & Co., a corporation of Enosburg Falls, Vt., shipped into New York a quantity of lemon oil, extract or flavor, the label on which stated that it contained 3½ per cent of oil of lemon. Analysis of the product showed that it did not contain more than 2.6 per cent. The company pleaded guilty and the court imposed the heavy fine noted above.

A seizure of another shipment of oil of lemon, which is charged to have been adulterated and misbranded, has also just been reported. The shipper was Sethness Company of Chicago, Ill., and the seizure was made on September 2 in Boston, Mass., by agents of the Department of Agriculture. Fourteen copper cans, each containing 25 pounds of the so-called "Standard Quality Oil of Lemon," have been seized. Adulteration and misbranding are charged in that it is labeled "Standard Quality Oil of Lemon" when in fact it consists of washed lemon oil reinforced with citral.

"Washed lemon oil," as explained above, is merely the residue left after the pure lemon oil has been shaken up with alcohol to make lemon extract.

Proceedings for the condemnation and forfeiture of this alleged "Standard Quality Oil of Lemon" are now pending in the District Court at Boston, where the issue will be tried out as to whether the product is adulterated and misbranded under the Pure Food Law.

MAPLE SYRUP ADULTERATED.

A newly issued Notice of Judgment of the Department of Agriculture stated that the Vermont Maple Sugar Maker's Market, Randolph, Vt., pleaded guilty to the misbranding of maple syrup and was fined $50. This corporation was alleged to have shipped in violation of the Food and Drugs Act, from Vermont into the District of Columbia, a quantity of syrup labeled "Colonial Maple Syrup, prepared expressly for Woodward and Lothrop, Washington, D. C."

From analysis of a sample of the product made by the Bureau of Chemistry, it did not appear to be a high-grade syrup. It appeared that it was a syrup which had undergone fermentation, and had been reboiled, during which process it was burned. It was alleged that the product was adulterated and misbranded in that it was not maple syrup, but a by-product known as "buddy" syrup composed in part of filthy, putrid and decomposed animal or vegetable substance.

ADULTERATED RICE.

The Kellogg Manufacturing Company, Keokuk, Iowa. was fined $15 and costs for the shipment from Iowa to Illinois of rice alleged to be misbranded.

The product was labeled "This rice is finished by a coating of 1-1000th part of glucose and 1-3000th part talc, which will be removed by washing. Gate City Brand Fancy Japan Style Rice K. B. Co., Trade Mark Gate City Crown in United States. Packed by Kellogg Manufacturing Company, Keokuk, Iowa."

After examination of a sample, it was reported to be a very poor grade of domestic grown Japan style rice, coated with some preparation, presumably glucose and talc, containing a large per cent of stackburnt grains and a lot of broken grains and that it was altogether of very inferior quality.

Adulteration was alleged because a very poor grade of domestic rice had been substituted wholly or in part for the genuine article, namely, "Fancy Japan Style Rice," and further because it was coated in a manner whereby damage and inferiority were concealed. Misbranding was alleged because the product was labeled in large letters "Fancy Japan Style Rice" and in small inconspicuous letters "Grown in the United States" and "This rice is finished by a coating of 1-1000th part of glucose and 1-3000th part talc, which will be removed by washing."

$29.70 was the fine, including costs, imposed on the Southern Cotton Oil Co., doing business at Newport, Ark., for the alleged shipment into Indiana of misbranded cottonseed meal. Misbranding of the product was alleged because the label indicated that it contained more protein than was found by analysis of a sample. Among other things on the label was the statement "We give and ask a Square Deal."

SHIPPER OF CELERY-VISCE FINED.

A "Harmless and speedy remedy for Headache, Neuralgia, Sleeplessness, Depression, induced by excessive indulgence in liquor. Sour Stomach, Indigestion, Nausea, Painful Menstruation and other Nervous Disorders" was alleged to be misbranded because it contained a harmful drug, according to a notice of judgment just issued by the Department of Agriculture.

James Vanatta, alias Century Chemical Company, of Indianapolis, Ind., was charged with the shipment of a quantity of "Celery-Visce" which was described on the label in the above terms. It was also stated to be "Pleasant as Cream Soda."

Having described it as a harmless remedy, the label continues as follows:

Directions: Dash with force a third of a glass of water on a heaping teaspoonful. Drink while foaming. Repeat in 20 minutes if necessary. Acetphenetidin less than four per cent. Compound Vanilla Flavoring, Guaranteed under the Pure Food and Drugs Act, June 30, 1906.

According to the view of the Department of Agriculture the statement that the product contains acetphenetidin. is inconsistent with the former statement that the product is harmless.

The printing on the paper wrapper and package containing the product was regarded as false and misleading. The defendant entered a plea of guilty and the court imposed a fine of twenty-five dollars and costs.

SHORT WEIGHT CHEESE.

Notice of judgment issued by the U. S. Department of Agriculture states that a libel was filed for the seizure and condemnation of 100 boxes of cheese shipped by the Cudahy Packing Company from Wisconsin to Jacksonville, Fla. Misbranding was charged in violation of the Food and Drugs Act.

The product was unlabeled, but certain penciled figures indicated the net weight of the cheese contained in the boxes were alleged to be false and misleading so as to deceive a purchaser as to the actual net weight contained in each box.

The costs of the proceedings having been paid by the said Cudahy Packing Company, who claimed the goods, a formal decree of condemnation and forfeiture was entered, and the product was released to said company on a bond which obligated it not to ship the goods in interstate commerce except in conformity with the law.

BRANDY DESCRIBED.

Having wrestled for a couple of years with such minor problems as "what is beer?" and "what are weeds?" Uncle Sam's board of food and drug inspection—the "pure food board"—has finally decided "what is brandy?"

Its answer, made public today, declares officially and forever:

"Brandy is the alcoholic distillate obtained solely from the fermented juice of fruit, distilled under such conditions that the characteristic bouquet, or volatile flavoring and aromatic principles, is retained in the distillate.

"Grape brandy is the distillate obtained from grape wine under these conditions.

"Apple, peach and other fruit brandies are similarly prepared from the fermented juices of the respective fruits.

"The board is of the further opinion that so-called brandy prepared from grain, potato or other form of industrial alcohol, or from alcohol obtained from the by-products of wine manufacture, mixed with more or less true brandy, or other flavoring material, is adulterated and misbranded unless labeled to indicate its true composition."

Survey of the Food World

GOVERNMENT MEAT INSPECTION.

The magnitude of the Government Meat Inspection Service is shown by the following figures covering the past seven years, the period during which the present law has been in effect. In this period more than 377,000,000 animals were inspected at slaughter, of which 1,100,000 carcasses and 4,750,000 parts of carcasses were condemned. The reinspection of meat and meat food products in their various preparations amounted to 44 billion pounds, of which there were condemned on reinspection 148,000,000 pounds. There were certified for export eight billion pounds.

Federal inspection is maintained at 792 slaughtering and packing establishments, which number includes practically every establishment of importance in the country. These establishments are distributed in 227 towns and cities. The force necessary to conduct inspection is comprised of 2,400 veterinary inspectors and assistants.

The quickness and certainty with which the government inspectors stationed in packing houses detect tuberculosis and other diseases in animals and carcasses examined by them at the time of salughter is an interesting example of developed expertness. Each veterinary inspector is well grounded in the fundamental knowledge of animal diseases and when entering the service is taken in hand by an experienced inspector for careful instruction in his duties.

In the large packing establishments the post-mortem inspection work is so divided and systematized that each carcass must pass the scrutiny of several inspectors, each of whom gives his entire attention to examining certain particular parts. Under this system the inspector's vision and sense of touch become so highly trained that exceedingly slight variations from the normal in organ or tissue are detected instantly, and the government tag is promptly affixed to all the carcasses which show such variation and they are set aside for further inspection by a final inspector.

DAIRY HERD CONDEMNED.

Officials of the Michigan state likestock sanitary commission Friday condemned a herd of eleven cows owned by Clyde W. Rockey, Royalton township, as being afflicted with tuberculosis. They were immediately quarantined and will be killed later under direction of state inspectors.

Herds belonging to William Jasper and Mrs. Barbara Rockey, pastured on either side of C. W. Rockey's cows, were given the tuberculin test and pronounced in healthy condition.

W. R. Harper, secretary of the commission, returned to the twin cities Wednesday with Dr. Schuh, head of the Grand Rapids Veterinary College, and the Rockey herd, previously labeled as "suspicious," was given the serum injection to determine the presence of tuberculosis. Six out of the eleven reacted to the test and were declared infected with the disease. The inspectors, however, placed the ban on the entire herd and will return later to slaughter the animals.

The loss will be a heavy one to Mr. Rockey. Several weeks ago he wrote to the commission asking for an inspection of his herd.

Dr. H. C. Bartlett, milk inspector of St. Joseph, some time ago suspected that some of the cows were affected with the disease and shut off this supply of milk from the city. The outcome of the tests, the state officials say, justified him in this action.

The Rockey herd earlier in the summer contained sixteen cows. Five of them were sold. The commission will follow these animals to their new owners and place them in quarantine and in all probability order them killed.

HOUSEWIVES PLAN CAMPAIGN.

A vigorous pure food campaign is being planned by the Detroit Housewives' League for the fall, and it will be but a short time before active work of the league is again under way.

In announcing its plans for the fall and winter the Housewives' League lays emphasis on the fact that it is independent of and in no way responsible for Housewives' League store No. 1.

"In granting an application to open such a store in the North Woodward district," says Mrs. Florence King Allen, secretary, "the league was given to understand that its tenets would be lived up to, and that the store would be run for the benefit of league members in a purely co-operative manner. As soon as the privilege of using the name was given, however, articles of incorporation were filed, and the incorporators announced themselves an independent body, authorized to conduct business independent of the general league. We realize now that the policy and control of the Housewives' League store are regulated entirely by the corporation. The league has no more connection with Housewives' League store No. 1 than with any privately owned grocery in the city."

EDUCATING THE CONSUMER.

A municipally-owned ice plant for St. Paul was indorsed by Miss Emily Dobbin, representing the Fabian society, in an address yesterday to the St. Paul Housewives' League at the state fair. She declared that a city-controlled ice plant would mean lower prices for the consumers.

Joel G. Winkjer of the State Dairy and Food Department urged housewives to do more preserving and canning at home. "Women should be educated to a knowledge of the danger of using preservatives," said Mr. Winkjer. "No housewife's knowledge is complete unless she knows how to preserve fruits and vegetables.

"Cheap canned goods are one of the poorest investments a housewife can make. Aside from being of no food value, they are often injurious."

C. C. Neale of the State Bureau of Weights and Measures explained the working of the new berry box law, Mrs. Marion Cole Fisher talked on "Efficiency in the Household" and urged women to learn to cook scientifically and to use all the labor-saving devices possible.

Mrs. D. W. MacCourt of St. Paul presided at the meeting.

APRICOTS ORDERED DESTROYED.

The U. S. Department of Agriculture has issued notice of judgment in the case of United States vs. 40 Boxes Apricots. These apricots were seized at Buffalo, N. Y., the holder alleging that the product had been shipped by M. Rosen, New York, N. Y., from the state of New York via the states of New Jersey and Pennsylvania, back into the state of New York. Thirty-two of the boxes were labeled: "Twenty-five pounds net when packed. California Royal Apricots, Guaranteed Under Food and Drugs Act, Serial No. 6739; W. M. Rosen, New York; National Bircuit Co., Buffalo, N. Y.," and eight of the boxes were labeled: "Twenty-five pounds net when packed. Apricots D Preserved with Sulphur Dioxide No. 41; National Biscuit Co., Buffalo, N. Y."

The allegation was that about 60 per cent of the product consisted of a filthy, decomposed and mouldy vegetable substance, which said filthy, decomposed and mouldy vegetable substance rendered the product injurious to health and unfit for human food.

No claimant having appeared for the property, judgment of condemnation and forfeiture was entered and it was ordered by the court that the product should be destroyed by the United States marshal.

TONS OF STUFF SEIZED.

More than two tons of artificially colored jam and jelly found in the wholesale bakers' supply house of E. B. Gallagher & Co., 116-118 Jefferson avenue, Detroit, Mich., were condemned by Inspectors Collins and Jones of the State Dairy and Food Department Saturday.

According to the inspectors, this firm had already been warned regarding the manufacture and sale of artificially colored products. Warrants will be asked for the firm's officials by State Food Commissioner Helme's deputies.

Several samples of pie filling powders were taken from the plant of the New England Pie Company at Fourth avenue and Beech street by Inspector Raike recently. They will be sent to the state chemist for analysis. Sanitary conditions at this institution were found satisfactory. A quantity of egg compound was found in the factory which the proprietor stated he had purchased from a jobbing house.

Seventy-eight soda fountains in drug stores and confectioners in New Orleans, when inspected by the employes of the State Board of Health, showed only thirteen in good condition and none scored excellent. Twenty-three scored fair, twenty-nine poor and thirteen bad. A reinspection will ensue, and those found to be the dirtiest will be closed if they are not properly cleaned.

Exhaustive Baking Powder Experiments

Test Made with Baking Powder Containing Egg Albumen Compared with Baking Powder Without This Constituent

FOOD COMMISSIONER JAMES H. WALLIS of Idaho has caused to be conducted an exhaustive experiment with baking powders, calculated to determine the status of egg albumen as a constituent part of baking powder. The report which follows is from the state chemist, who personally conducted the tests:

Boise, Idaho, Sept. 4, 1913.

Mr. James H. Wallis, Food Commissioner, Boise, Idaho.

Dear Sir: In attempting to reply to the question, Is egg albumen a useful constituent of baking powder? I have felt that properly planned baking experiments should have great weight in the matter.

As baking powder is used solely to give lightness or volume to the product a measurement of the volume of the loaf is indicated, and this is best expressed as Specific Volume, which may be defined as the volume per unit weight. The metric system lends itself most readily to this work and all results quoted are expressed in it, although in the beginning the weighings were made by pounds and ounces and then transformed into the metric system. This occasioned a large amount of extra calculation, due to the absence of a suitable set of metric weights which are now being imported.

The outline of the experimental work is as follows:

Mr. Morrison of the Home Bakery Cafeteria loaned the facilities of his bake shop and the time of his bakers for the work, with the understanding that the state woud purchase any cakes which he considered below his usual grade.

After conferring with the head baker it was decided that the cake known as their "plain cup cake" was most suitable for experimental purposes, because (1) it is a product made about every day; (2) is made in same quantity; (3) is very constant in its appearance and other characteristics under normal conditions; (4) is not so delicate that changes in appearance need to be assigned to various causes as oven temperature, time of baking, etc., etc.; (5) because it was believed that any changes noted would be properly assigned to manipulation of the baking powder.

Further agreements were:

1. That the regular formula and procedure should be followed by the bakers except for any changes that I should make in the baking powder.
2. That I should furnish all baking powder and be present during the entire time of mixing and baking.
3. That only a cream of tartar powder should be used unless otherwise stated.
4. That no one but myself should know the nature of the change wrought upon the powder.
5. That the object of the experiment should not be known until completed.
6. That the bakers should judge the product at each baking.

Before the experiment proper was begun cakes were bought at the counter from regular stock for preliminary measurement. This served a double purpose: (1) To test the method of measurement, see that it worked properly and gain facility in using it; (2) to obtain data on the volume of cakes baked under usual conditions.

The method of measurement was found to work quite well. In obtaining the specific volume of the cup cakes their volume, expressed in cubic centimeters (hereafter abbreviated as usual to c. c.) was divided by their weight expressed in grams (g.). The most difficult part was to obtain the volume. It could not be measured by a foot rule as the cakes were not geometrical figures therefore some method of displacement had to be used. It was not practicable to obtain the amount of water they would displace because they were lighter than water, and, second, they would rapidly soak up water. This last objection applies to all other liquids that might otherwise be of service, because liquids would penetrate into the cakes while it was desired to measure the cake as though it were an object covered with exceedingly thin and impervious skin.

Therefore the cakes were measured by their displacement of a solid body. The solid used was rape seeds. These are light, dry, round seeds which were later sifted to render them more regular in size. The procedure of measurement was as follows:

A Bureau of Standard brass standard liter was filled with the rape seed, taking care to always observe the same method and amount of tapping in order to settle the seeds to the same amount each time, and the excess of seeds brushed off by passing a straight edge across the top of the liter vessel. The seeds were then poured into a tared aluminum vessel and weighed. During a measurement of a batch of cakes this was repeated several times in order to secure an average figure for use in the calculations described later. The variations in the weights of various liters of rape seed indicate the limits of accuracy of this method and are inherent to it.

Next, two cakes were buried in rape seed in the liter measure so that they neither touched each other or the sides of the vessel and the liter filled as before, level full, with seeds. These were then poured out into the tared vessel, the cakes removed and the seeds weighed. The loss in weight indicated the rape seeds excluded by the presence of the cakes in the liter. The two cakes were then weighd.

From this data the specific volume was calculated and an actual example will make this calculation plain:

Average weight of 1,000 c.c. of rape seeds.....687.2 g.
Rape seed weighed with cakes 1 and 2.....517.8 g.
Rape seed displaced by cakes 1 and 2.....169.4 g.

$$\text{One gram rape seed} \frac{1{,}000}{687.2} \text{ c.c.} \ldots\ldots 1.4551 \text{ c.c.}$$

169.4 g. of rape seeds equals 169.4 times 1.4551 c.c...246.5 c.c.
Cakes 1 and 2 measure 246.5 c.c. in volume.
Weight of cakes 1 and 2.....82.2 g.
If 82.2 gram cakes occupy a volume of 246.5 c.c., then

$$\text{one gram occupies} \frac{246.5}{82.2} \text{ c.c.} \ldots\ldots 3.00 \text{ c.c.}$$

Therefore 3.00 is the "specific volume" of cakes 1 and 2, or they occupy 3.00 c.c. per each gram of their own weight. That is, if they are compared with water, water occupies only 1 c.c. per each gram of its weight at standard temperature, and its "specific volume" is 1. These cakes, then, occupy three times as much space as an equal weight of water and are therefore one-third as heavy as an equal volume of water at standard temperature.

The baker who usually mixed the cakes did so in every case and always strove to the best of his ability to make every mix like the others. The cakes were usually baked between 1 and 2 o'clock, beginning promptly at 1 p. m. One batch of five dozen cakes was mixed up, using in every case baking powder "A," and every ingredient—consisting of sugar, butter, compound, eggs, milk and flour—was carefully weighed on good bakers' balances and made uniform through all experiments. The lemon extract was measured by a standard spoon and the salt added, as usual, by measurement from the hand. This batch was then put in the oven, and while it was baking the second batch of five dozen was mixed and baking powder "B" used. Thus were distinguished cakes "A" and "B." The above procedure was followed so that the same person could mix both sets of cakes. When each batch of cakes was finished it was removed and, while cooling, twenty-four cakes were picked out for measuring. They were baked in five one-dozen tins, and in selecting cakes the same number as nearly as might be were taken. Thus for twenty-four cakes five cakes were taken from each of four tins and four from the last one. The cakes were always taken in the same order irrespective of the looks of the cakes, and sometimes in the case of the second five dozen, cakes were taken which occupied exactly the same relative position as those taken from the first five dozen, the sole consideration being to have the cakes selected truly representative of the whole five dozen. As a rule eighteen cakes were measured out of each sixty, which is 30 per cent of all baked. Once or twice one or two less or more than eighteen were measured. The cakes were weighed and measured two at a time in order to shorten the work. Thus we have nine sets of results for each batch, A and B. These nine "specific volumes" were then averaged into one figure for cakes A and one for cakes B, thus eliminating errors of single measurements by taking the average of nine separate results. This procedure rests upon the mathematically demonstrable fact that in taking a sufficiently large number of measurements of a quantity one will finally err

on plus side as often as on the minus. Ten separate measurements are considered a fair number to take. It is true that in this case the errors are such as to make twenty or thirty measurements much more desirable, but time could scarcely be found for them, so we had to be content with nine or ten.

In weighing the cakes 1 and 2 A were first weighed and then 1 and 2 B next, so that all through the weighings B cakes were exposed no less and no more than A cakes of the same number. Weighings were made as rapidly as possible, so that the drying of the cakes might be slight. A and B cakes set side by side in the open air on two trays while the weighing proceeded. Weighings were made to the nearest half gram, but on account of the ounce weights used in conjunction with the gram weights the final results show other fractions than 0.5 gram. The balance used was a high-grade platform scale, had a capacity of several pounds and was sensitive to 0.1 of a gram or less.

BAKING NO. 1.

Cakes were baked Friday, July 17, and were bought and weighed July 18, from 4:20 to 5:30 p. m. Regular stock, baked without knowledge that they would be tested:

RECORD OF WEIGHINGS.

		Grams
Weight of 1,000 c. c. of Rape Seed	(1)	690.4
	(2)	686.9
	(3)	694.9
	(4)	678.0
	(5)	685.9
Average		687.2
Weight of cakes—		
1 and 2		82.2
3 and 4		91.0
5 and 6		86.5
7 and 8		87.0
9 and 10		89.0
11 and 12		87.5
Weight of Rape Seed weighed with cakes—		Grams
1 and 2	(1)	517.8
	(2)	517.3
3 and 4		489.9
5 and 6		502.9
7 and 8		514.3
9 and 10		497.4
11 and 12		515.8

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes (being the average weight of 1,000 c. c. of Rape Seed (687.2) minus "weight of Rape Seed weighed with cakes").

		Grams
1 and 2	(1)	169.4
	(2)	169.9
3 and 4		197.3
5 and 6		184.3
7 and 8		172.9
9 and 10		189.8
11 and 12		171.4

One gram of Rape Seed $= \frac{1{,}000}{687.2} = 1.455 +$ c.c. $=$ A.

$$\text{Log.}\frac{1{,}000}{687.2} = .16292.$$

Volume of cakes in cubic centimeters (c. c.) (being "weight of Rape Seed displaced by cakes," multiplied by the volume of "one gram of Rape Seed" (A)).

Cakes—		c. c.
1 and 2	(1)	246.5
3 and 4	(2)	247.2
5 and 6		287.1
7 and 8		268.2
9 and 10		276.2
11 and 12		249.4

Specific volume of cakes (being "volume of cakes" divided by "weight of cakes").

Cakes—		
1 and 2	(1)	3.00
	(2)	3.01
3 and 4		3.16
5 and 6		3.10
7 and 8		2.89
9 and 10		3.10
11 and 12		2.85

Average of 12 cakes, 3.02.

BAKING NO. 2.

Cakes baked Saturday, July 19, at 11 a. m. to 1 p. m. Purchased from show case at 3:15 p. m. Monday, July 21st, and weighed after 4 p. m. Regular stock, baked without knowledge that they would be tested.

RECORD OF WEIGHINGS.

		Grams
Weight of 1,000 c. c. of Rape Seed	(1)	674.0
	(2)	695.9
	(3)	687.9
Average		685.9
Weight of cakes—		
1 and 2	(1)	84.2
	(2)	84.2
3 and 4	(1)	84.7
	(2)	
5 and 6	(1)	84.2
	(2)	
	(3)	83.7
1 and 3	(1)	83.2
	(2)	82.7
2 and 4		84.2
5 and 6		83.2
Weight of Rape Seed weighed with cakes —		
1 and 2	(1)	516.8
	(2)	498.4
3 and 4	(1)	510.8
	(2)	515.8
5 and 6	(1)	515.8
	(2)	515.3
	(3)	509.9
1 and 3	(1)	512.3
	(2)	519.3
2 and 4		518.8
5 and 6		520.3

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—		
1 and 2	(1)	169.1
	(2)	187.5
3 and 4	(1)	175.1
	(2)	170.1
5 and 6	(1)	170.1
	(2)	170.6
	(3)	176.0
1 and 3	(1)	173.6
	(2)	166.6
2 and 4		167.1
5 and 6		165.6

Grams

One gram of Rape Seed $= \frac{1{,}000}{685.9} = a = \ldots\ldots 1.458$

$$\text{Log.}\frac{1{,}000}{685.9} = .16374.$$

Volume of cakes—		c.c.
1 and 2	(1)	246.5
	(2)	273.4
3 and 4	(1)	255.3
	(2)	248.0
5 and 6	(1)	248.0
	(2)	248.7
	(3)	256.6
1 and 3	(1)	252.9
	(2)	242.7
2 and 4		243.5
5 and 6		241.3
Specific volume of cakes—		Grams
1 and 2	(1)	2.93
	(2)	3.25
3 and 4	(1)	3.01
	(2)	2.93
5 and 6	(1)	2.95
	(2)	2.95
	(3)	3.07
1 and 3	(1)	3.04
	(2)	2.94
2 and 4		2.89
5 and 6		2.90
Average of 6 cakes		2.99

BAKING NO. 3.

Baking divided into two sections, A and B. Cakes A contained 2 ounces of Cleveland's Baking Powder purchased in

the open market. Cakes B contained 2 ounces of the same baking powder as A, in every way. No egg albumen added in either case. Cakes baked 11-12, noon, Tuesday, July 22, and weighed 1:15 to 5:30.

Weight of 1,000 c.c. of Rape Seed—		
Weighed before cakes 1 and 2 A	(1)	671.0
	(2)	683.5
	(3)	680.0
Weighed after cakes 1 and 2 B	(4)	678.0
	(5)	686.5
	(6)	682.0
Weighed after cakes 3 and 4 B	(7)	679.0
Weighed after cakes 5 and 6 B	(8)	681.0
Weighed after cakes 9 and 10 B	(9)	682.5
Weighed after cakes 17 B	(10)	684.0
	(11)	684.0
	(12)	684.0
Average of 12 weighings		681.3

Weight of cakes—	Grams "A"	Grams "B"
1 and 2	97.0	89.6
3 and 4	92.0	92.0
5 and 6	90.5	91.5
After this point only sifted seed was used in all measurements.		
7 and 8	94.5	98.5
9 and 10	86.5	84.5
11 and 12	84.0	90.5
13 and 14	92.5	92.5
15 and 16	86.5	94.5
17	51.0	44.5
Average of 17 cakes		

Weight of Rape Seed weighed with cakes—		Grams "A"	Grams "B"
1 and 2	(1)	471.1	490.6
	(2)	471.1	492.1
3 and 4	(1)	475.1	482.1
	(2)	476.1	481.1
5 and 6	(1)	475.6	486.6
	(2)	477.1	486.6
Use of sifted Rape Seed begun—			
7 and 8	(1)	470.1	475.1
	(2)	474.6	
9 and 10	(1)	495.6	510.6
	(2)	496.6	510.6
11 and 12		494.6	491.6
13 and 14		486.1	483.1
15 and 16		490.6	494.1
17		572.5	582.5

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—		"A"	"B"
1 and 2	(1)	210.2	190.7
	(2)	204.0	189.2
3 and 4	(1)	206.2	199.2
	(2)	205.2	200.2
5 and 6	1)	205.7	194.7
	(2)	204.2	194.7
7 and 8	(1)	211.2	206.2
	(2)	206.7	
9 and 10	(1)	185.7	170.7
	(2)	184.7	170.7
11 and 12		186.7	189.7
13 and 14		195.2	198.2
15 and 16		190.7	187.2
17		108.8	98.8

$$\text{One gram of Rape Seed} = \frac{1{,}000}{681.3} = a = 1.468 \text{ c.c.}$$

Volume of cakes—		c.c. "A"	c.c. "B"
1 and 2	(1)	308.5	280.0
	(2)	299.4	277.7
3 and 4	(1)	302.7	292.4
	(2)	301.2	293.9
5 and 6	(1)	301.9	285.8
	(2)	299.8	285.8
7 and 8	(1)	310.0	302.7
	(2)	303.4	
11 and 12	(1)	274.0	278.5
13 and 14		286.6	290.9
15 and 16		280.0	274.8
17		159.7	145.0

Specific volume of cakes—			
1 and 2	(1)	3.18	3.13
	(2)	3.09	3.10
3 and 4	(1)	3.29	3.18
	(2)	3.27	3.20
5 and 6	(1)	3.34	3.12
	(2)	3.31	3.12
7 and 8	(1)	3.28	3.07
	(2)	3.21	
9 and 10	(1)	3.15	2.97
	(2)	3.13	
11 and 12		3.26	3.08
13 and 14		3.10	3.15
15 and 16		3.24	2.91
17		3.13	3.26
Average of 17 cakes		3.21	3.10

BAKING NO. 3 (Cont'd).

Same cakes reweighed twenty-four (24) hours later. Held in open air at about 25° C. till 3:00 p. m., July 23, when weighings begun for second time.

RECORD OF WEIGHINGS.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	682.0
	(2)	683.0
	(3)	681.0
	(4)	684.5
	(5)	684.5
	(6)	682.5
	(7)	682.0
Average		682.8

Weight of cakes—	"A"	"B"
1 and 2	88.0	81.0
3 and 4	84.0	83.0
5 and 6	82.0	83.0
7 and 8	86.5	90.0
9 and 10	79.0	77.5
11 and 12	77.0	82.5
13 and 14	84.5	85.5
15 and 16	79.0	87.0

Weight of Rape Seed weighed with cakes—		"A"	"B"
1 and 2		486.0	497.6
3 and 4		488.6	499.6
5 and 6	(1)	492.6	509.6
	(2)		508.6
7 and 8		476.1	486.6
9 and 10	(1)	510.6	526.6
	(2)	510.6	
11 and 12		504.1	501.6
13 and 14		495.6	491.6
15 and 16		505.6	506.6

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—			
1 and 2		196.8	185.8
3 and 4		194.8	183.8
5 and 6		190.2	173.2
7 and 8		206.7	196.2
9 and 10	(1)	172.2	156.2
	(2)	172.2	
11 and 12		178.7	181.2
13 and 14		187.2	191.2
15 and 16		177.2	176.2

$$\text{One gram of Rape Seed} = \frac{1{,}000}{682.8} \text{ c.c.} = A = 1.465 \text{ c.c.}$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	288.2	272.1
3 and 4	285.3	269.2
5 and 6	278.6	253.7
7 and 8	302.7	287.4
9 and 10	252.2	228.8
11 and 12	261.7	265.4
13 and 14	274.2	280.0
15 and 16	259.5	258.1

Specific volume of cakes—	"A"	"B"
1 and 2	3.28	3.36
3 and 4	3.40	3.24
5 and 6	3.40	3.06
7 and 8	3.50	3.19
9 and 10	3.19	2.95
11 and 12	3.40	3.22
13 and 14	3.25	3.28
15 and 16	3.29	3.97
Average of 16 cakes	3.34	3.16

Compare with cakes on page ——. These are the same as on page ——, but dried twenty-four (24) hours and were then weighed again.

BAKING NO. 4.

Baking divided into two sections, A and B. Cakes A contained two ounces of Cleveland's Baking Powder, purchased in the open market. Cakes B contained two ounces of the same baking powder as A, with the addition of 0.5% of egg albumen. Cakes mixed and baked 1 to 2:15 p. m., July 24th, and weighings begun 3 p. m., July 24th.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	684.0
	(2)	684.5
	(3)	687.0
	(4)	686.0
	(5)	688.0
	(6)	686.5
Average of 6 weighings		686.0

Weight of cakes—	"A"	"B"
1 and 2	96.05	93.05
3 and 4	91.05	89.55
5 and 6	101.0	92.55
7 and 8	94.55	91.55
9 and 10	94.05	92.05
11 and 12	91.55	93.55
13 and 14	99.3	89.05
15 and 16	94.05	91.80
17 and 18	93.80	103.6
Weight of Rape Seed weighed with cakes—		
1 and 2	491.5	495.1
3 and 4	501.6	496.6
5 and 6	474.6	495.6
7 and 8	488.6	501.1
9 and 10	496.6	493.1
11 and 12	493.6	502.6
13 and 14 (1)	488.1	500.6
		(501.1 av.)
(2)	490.6	501.6
15 and 16	489.6	496.9
17 and 18	491.4	476.3

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—		
1 and 2	194.9	190.9
3 and 4	184.4	189.4
5 and 6	211.4	190.4
7 and 8	197.4	184.9
9 and 10	189.4	192.9
11 and 12	192.4	183.4
13 and 14	196.7	184.9
15 and 16	196.4	189.1
17 and 18	194.6	209.7

$$\text{One gram of Rape Seed} = \frac{1{,}000}{686.0} = A = 1.458.$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	284.1	278.3
3 and 4	268.8	276.1
5 and 6	308.2	277.6
7 and 8	287.8	269.5
9 and 10	276.1	281.2
11 and 12	280.5	267.4
13 and 14	286.7	269.5
15 and 16	286.3	275.7
17 and 18	283.7	305.7
Specific volumes of cakes—	"A"	"B"
1 and 2	2.96	2.99
3 and 4	2.95	3.08
5 and 6	3.05	3.00
7 and 8	3.04	2.94
9 and 10	2.94	3.06
11 and 12	3.06	2.86
13 and 14	2.89	3.03
15 and 16	3.04	3.00
17 and 18	3.02	2.95
Average of 18 cakes	3.00	2.99

BAKING NO. 5.

Baking divided into two sections, "A" and "B." Cakes "A" contained two ounces of Cleveland's Baking Powder, purchased in the open market. Cakes "B" contained two ounces of the same powder as in "A" with the addition of 1% of egg albumen. Cakes baked 1 to 2:30 p. m., July 29th, and weighings begun at 3:45 p. m. of the same date.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	686.0
	(2)	692.0
	(3)	691.5
	(4)	688.5
	(5)	690.5
	(6)	687.5
	(7)	688.0
	(8)	690.5
Average of 8 weighings		689.3

Weight of cakes—	"A"	"B"
1 and 2	97.0	100.5
3 and 4	100.5	97.0
5 and 6	87.0	83.7
7 and 8	86.5	92.5
9 and 10	95.0	89.5
11 and 12	94.5	94.0
13 and 14	87.5	98.0
15 and 16	94.5	96.5
17 and 18	87.5	90.5
Weight of Rape Seed weighed with cakes—		
1 and 2	482.6	474.6
3 and 4	470.6	483.6
5 and 6	507.6	506.6
7 and 8	501.6	493.6
9 and 10	485.1	495.6
11 and 12	490.6	488.1
13 and 14	491.6	482.6
15 and 16	486.1	482.1
17 and 18	496.1	496.6

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—	"A"	"B"
1 and 2	206.7	214.7
3 and 4	218.7	205.7
5 and 6	181.7	182.7
7 and 8	187.7	195.7
9 and 10	204.2	193.7
11 and 12	198.7	201.2
13 and 14	197.7	206.7
15 and 16	203.2	207.2
17 and 18	193.2	192.7

$$\text{One gram of Rape Seed} = \frac{1{,}000}{689.3} = A = 1.451.$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	299.9	311.5
3 and 4	317.3	298.4
5 and 6	263.6	265.1
7 and 8	272.3	283.9
9 and 10	296.2	281.0
11 and 12	288.3	291.9
13 and 14	286.8	299.9
15 and 16	294.8	300.6
17 and 18	280.3	279.6
Specific volume of cakes—	"A"	"B"
1 and 2	3.09	3.10
3 and 4	3.16	3.08
5 and 6	3.03	3.17
7 and 8	3.15	3.07
9 and 10	3.12	3.14
11 and 12	3.05	3.11
13 and 14	3.28	3.06
15 and 16	3.12	3.12
17 and 18	3.20	3.09
Average of 18 cakes	3.13	3.10

In examining cakes for odor, "B" cakes had a little more odor and it was not so delicate, fine or pleasing but tended to be coarse and disagreeable. It might be described as strong in a disagreeable sense. In breaking three cakes of each batch the texture of "A" was judged to be a little, though a very little, better than "B." In flavor, "A" was slightly *nicer* in taste, more delicate and pleasing.

BAKING NO. 6.

Baking divided into two sections, "A" and "B." Cakes "A" contained two ounces of Cleveland's Baking Powder, purchased in the open market with the addition of 2% of egg albumen. Cakes "B" contained two ounces of Cleveland's Baking Powder alone. Cakes baked 1 to 2:30 p. m. and weighings begun at 3:15 p. m., July 31.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	686.5
	(2)	684.0
	(3)	684.0
	(4)	689.5
	(5)	689.5
	(6)	687.0
	(7)	689.0
	(8)	687.0
	(9)	689.5
Average of 9 weighings		687.3

Weight of cakes—	"A"	"B"
1 and 2	94.5	92.5
3 and 4	94.0	93.5
5 and 6	95.5	95.5
7 and 8	93.0	85.5
9 and 10	93.0	93.5
11 and 12	91.5	94.0
13 and 14	93.0	101.5
15 and 16	94.0	95.5
17 and 18	92.0	88.5
Weight of Rape Seed weighed with cakes—		**Grams**
1 and 2	484.6	479.6
3 and 4	478.6	479.6
5 and 6	481.6	481.6
7 and 8	480.6	490.1
9 and 10	483.6	488.1
11 and 12	486.6	478.6
13 and 14	485.6	479.1
15 and 16	471.1	484.6
17 and 18	481.1	494.6

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—		
1 and 2	202.7	207.7
3 and 4	208.7	207.7
5 and 6	205.7	205.7
7 and 8	206.7	197.2
9 and 10	203.7	199.2
11 and 12	200.7	208.7
13 and 14	201.7	208.2
15 and 16	216.2	202.7
17 and 18	206.2	192.7

$$\text{One gram of Rape Seed} = \frac{1{,}000}{687.3} = A = 1.455.$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	294.9	302.2
3 and 4	303.7	302.2
5 and 6	299.3	299.3
7 and 8	300.7	286.9
9 and 10	296.4	289.8
11 and 12	292.0	303.7
13 and 14	293.5	302.9
15 and 16	314.6	294.9
17 and 18	300.0	280.4
Specific volume of cakes—	**"A"**	**"B"**
1 and 2	3.12	3.27
3 and 4	3.23	3.23
5 and 6	3.13	3.13
7 and 8	3.23	3.36
9 and 10	3.19	3.10
11 and 12	3.19	3.23
13 and 14	3.16	2.98
15 and 16	3.35	3.09
17 and 18	3.26	3.17
Average of 18 cakes	3.21	3.17

From appearance in pan, "B" cakes were judged the better mix. "B" cakes thought to be slightly larger in volume. "B" cakes two or three shades yellower than "A" and more different from "A" than they were in the previous bakings. "B" cakes a little more tender. "A" cakes have the better odor, more pleasant and fragrant. "B" cakes smell as though they had lost the fragrant odor. Outside appearance indicates the differences noted above, except odor, were caused in the mixing by a different amount of working and this outside appearance indicates a greater difference than the inside of the cakes show.

BAKING NO. 7.

Baking divided into two sections, "A" and "B." Cakes "A" contained two ounces of Cleveland's Baking Powder, purchased in the open market with the addition of 5% of egg albumen. Cakes "B" contained two ounces of Cleveland's Baking Powder, as above, without the addition of egg albumen. Cakes baked 1 to 2:30 p. m., and weighings begun 3:15 p. m., August 4th.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	690.5
	(2)	693.5
	(3)	688.0
	(4)	693.0
	(5)	694.5
	(6)	695.5
	(7)	693.0
	(8)	689.0
	(9)	689.0
	(10)	690.5
Average of 10 weighings		691.7

Weight of cakes—	"A"	"B"
1 and 2	93.0	94.0
3 and 4	94.0	97.0
5 and 6	96.0	87.5
7 and 8	90.0	94.5
9 and 10	94.5	97.0
11 and 12	92.0	88.0
13 and 14	118.5	91.0
15 and 16	91.0	93.5
17 and 18	88.5	99.0
19 and 20	86.0	89.5
Weight of Rape Seed weighed with cakes—	**"A"**	**"B"**
1 and 2	496.1	493.1
3 and 4	498.1	486.6
5 and 6	499.1	494.6
7 and 8	496.6	500.1
9 and 10	486.1	490.1
11 and 12	504.6	498.1
13 and 14	463.1	502.6
15 and 16	504.6	501.1
17 and 18	506.1	483.1
19 and 20	515.6	499.1

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes.		
1 and 2	195.6	198.6
3 and 4	193.6	205.1
5 and 6	192.6	197.1
7 and 8	195.1	191.6
9 and 10	205.6	201.6
11 and 12	187.1	193.6
13 and 14	228.6	189.1
15 and 16	187.1	193.6
17 and 18	185.6	208.6
19 and 20	176.1	192.6

$$\text{One gram of Rape Seed} = \frac{1{,}000}{691.7} = A = 1.446.$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	282.8	287.1
3 and 4	279.9	296.5
5 and 6	278.4	285.0
7 and 8	282.1	277.0
9 and 10	297.2	291.5
11 and 12	270.5	279.9
13 and 14	330.5	273.4
15 and 16	270.5	275.6
17 and 18	268.3	301.6
19 and 20	254.6	278.4
Specific volume of cakes—	**"A"**	**"B"**
1 and 2	3.04	3.05
3 and 4	2.98	3.06
5 and 6	2.90	3.26
7 and 8	3.13	2.93
9 and 10	3.15	3.01
11 and 12	2.94	3.18
13 and 14	2.79	3.00
15 and 16	2.97	2.95
17 and 18	3.03	3.05
19 and 20	2.96	3.11
Average of 20 cakes	2.99	3.06

"B" cakes a shade lighter than "A" cakes. No other difference noticed between "A" and "B" cakes.

BAKING NO. 8.

Baking divided in two sections, "A" and "B." Cakes "A" contained two ounces of Cleveland's Baking Powder, purchased in the open market, with the addition of 20% of egg albumen. Cakes "B" contained two ounces of Cleveland's Baking Powder, as above, without the addition of egg albumen. Cakes baked 1 to 2:30 p. m., and weighings begun 3:15 p. m., August 6th.

		Grams
Weight of 1,000 c.c. of Rape Seed	(1)	693.0
	(2)	694.5
	(3)	691.0
	(4)	693.0
	(5)	693.0
	(6)	694.0
	(7)	695.0
	(8)	693.5
	(9)	694.5
	(10)	690.5
Average of 10 weighings		693.2

Weight of cakes	"A"	"B"
1 and 2	97.0	99.0
3 and 4	101.5	87.5
5 and 6	89.5	94.0
7 and 8	90.5	92.0
9 and 10	93.5	92.0
11 and 12	95.0	88.0
13 and 14	96.5	94.5
15 and 16	95.0	101.0
17 and 18	94.0	95.0
19 and 20	94.5	97.0
Weight of Rape Seed weighed with cakes—		
1 and 2	482.6	480.1
3 and 4	475.6	501.1
5 and 6	492.6	484.6
7 and 8	495.6	479.6
9 and 10	486.1	484.1
11 and 12	466.1	506.1
13 and 14	485.1	486.1
15 and 16	478.6	474.1
17 and 18	487.6	486.6
19 and 20	483.1	479.6

CALCULATIONS FROM WEIGHINGS.

Weight of Rape Seed displaced by cakes—		
1 and 2	210.6	213.1
3 and 4	217.6	192.1
5 and 6	200.6	208.6
7 and 8	197.6	213.6
9 and 10	207.1	209.1
11 and 12	227.1	187.1
13 and 14	208.1	207.1
15 and 16	214.6	219.1
17 and 18	205.6	206.6
19 and 20	210.1	213.6

$$\text{One gram Rape Seed} = \frac{1{,}000}{693.2} = A = 1.443.$$

Volume of cakes—	c.c. "A"	c.c. "B"
1 and 2	303.8	307.4
3 and 4	313.9	277.1
5 and 6	289.4	300.9
7 and 8	285.1	308.1
9 and 10	298.8	301.6
11 and 12	327.6	269.9
13 and 14	300.2	298.8
15 and 16	309.6	316.1
17 and 18	296.6	298.0
19 and 20	303.1	308.1
Specific volume of cakes—	"A"	"B"
1 and 2	3.13	3.11
3 and 4	3.09	3.17
5 and 6	3.23	3.20
7 and 8	3.15	3.35
9 and 10	3.20	3.28
11 and 12	3.45	3.07
13 and 14	3.11	3.16
15 and 16	3.26	3.13
17 and 18	3.16	3.14
19 and 20	3.21	3.18
Average of 20 cakes	3.20	3.18

SUMMARY OF DATA.

TABLE I.

Average of weights of 1,000 c.c. of Rape Seed—

		Grams
Baking No. 1	(5 weighings)	687.2
Baking No. 2	(3 weighings)	685.9
Baking No. 3	(12 weighings)	681.3
Baking No. 3 Cont'd	(7 weighings)	682.8
Baking No. 4	(6 weighings)	686.0
Baking No. 5	(8 weighings)	689.3
Baking No. 6	(9 weighings)	687.3
Baking No. 7	(10 weighings)	691.7
Baking No. 8	(10 weighings)	693.2
Minimum		681.3
Maximum		693.2
Difference		11.9
Difference, per cent		1.7%

WEIGHT OF CAKES.

TABLE II.

BAKING NO. 1.		BAKING NO. 2.	
Min.	82.2	Min.	82.7
Max.	91.0	Max.	84.7
Dif.	8.8	Dif.	2.0
Dif.	10%	Dif.	2%

BAKING NO. 3.	A	B	BAKING NO. 4.	A	B
Min.	84.	84.5	Min.	91.05	89.05
Max.	97.	98.5	Max.	101.0	103.6
Dif.	13.	14.0	Dif.	10.	14.6
Dif.	13%	14%	Dif.	10%	14.6%

BAKING NO. 5.	A	B	BAKING NO. 6.	A	B
Min.	86.5	83.7	Min	91.5	85.5
Max.	100.5	100.5	Max.	94.5	101.5
Dif.	14.0	16.8	Dif.	3.0	16.0
Dif.	14%	17%	Dif.	3%	16%

BAKING NO. 7.	A	B	BAKING NO. 8.	A	B
Min.	86.	87.5	Min.	89.5	87.5
Max.	118.5	99.0	Max.	101.5	101.0
Dif.	33.	11.	Dif.	12.0	13.
Dif.	28%	11%	Dif.	12%	13%

WEIGHT OF RAPE SEED—DISPLACED BY CAKES.

TABLE III.

BAKING NO. 1.		BAKING NO. 2.	
Min.	169.4	Min.	165.6
Max.	197.3	Max.	187.5
Dif.	28.	Dif.	22.
Dif.	14%	Dif.	12%

BAKING NO. 3.	A	B	BAKING NO. 4.	A	B
Min.	184.7	170.7	Min.	184.4	183.4
Max.	211.2	206.2	Max.	211.4	209.7
Dif.	26.	35.	Dif.	27.0	26.3
Dif.	12%	17%	Dif.	13%	13%

BAKING NO. 5.	A	B	BAKING NO. 6.	A	B
Min.	181.7	182.7	Min.	200.7	192.7
Max.	218.7	214.7	Max.	216.2	208.7
Dif.	37.0	32.0	Dif.	15.5	16.0
Dif.	17%	15%	Dif.	7%	8%

BAKING NO. 7.	A	B	BAKING NO. 8.	A	B
Min.	176.1	189.1	Min.	197.6	187.1
Max.	228.6	208.6	Max.	227.1	219.1
Dif.	52.5	19.5	Dif.	29.5	32.0
Dif.	23%	9%	Dif.	13%	15%

TABLE IV.

	Percentage differences between Max. and Min. "Weight of Cakes."	Percentage differences between Max. and Min. "Weight of Rape Seed displaced by cakes."
Baking No. 1	10%	14%
2	2%	12%
3	13%	12%
3	14%	17%
4	10%	13%
4	14%	13%
5 A	14%	17%
5 B	17%	15%
6 A	3%	7%
6 B	16%	8%
7 A	28%	23%
7 B	11%	9%
8 A	12%	13%
8 B	13%	15%
Average	12.6%	13.4%

TABLE V.

AVERAGE SPECIFIC VOLUME OF CAKES.

Baking No.		A	B
1	(Average of 12 cakes)	3.02	
2	(Average of 6 cakes)	2.99	
3	(Average of 17 cakes)	3.22	3.10
3 Cont'd	(Average of 16 cakes)	**3.34	3.16
4	(Average of 18 cakes)	3.00	2.99 (0.5)†
5	(Average of 18 cakes)	3.13	3.10 (1.0)†
6	(Average of 18 cakes)	3.21 (2.0)†	3.17
7	(Average of 20 cakes)	2.99 (5.0)†	3.06
8	(Average of 20 cakes)	3.20 (20.)†	3.18

est being 82.2g. and the heaviest 118.5. This is to be expected as they are molded rapidly by hand and the dough adjusted by sight only. The size and weight of the cakes have no bearing on the experiment, and are put in merely to make the record completer. The variations are such as to be expected in ordinary cooking, and the question we have to answer is, under such ordinary conditions of baking is egg albumen a valuable ingredient of baking powder. The percentage variations between the maximums and minimum weights of cakes are given on pages 20 and 21, Table IV, for comparison with other data.

WEIGHT OF RAPE SEED DISPLACED BY CAKES.

The maximum and minimum of these weights are shown on page 20, Table III. This data is the most vital in the work for here is indirectly measured the volumes of the cakes, and if the rape seed does not fill every crevice and void large errors would result, and at the time of this measurement this could not be easily observed. One way to reduce this error is to make duplicate or triplicate measurements of the volumes of the cakes and average the results. This was done in measuring cakes in bakings No. 2 and 3. The weights were usually so concordant, however, that duplicate measurements were discontinued as they consumed much time.

That the measurement of the volumes of the cakes was carried out, on the average, about as accurately as the weights of 1000 c.c. of rape seed could be obtained, is indicated by the tabulated "Percentage Differences between the Maximum and Minimum Weights of Cakes" and the "Percentage Differences between the Maximum and Min-cakes are the same ones as were weighed on July 22 as "Baking No. 3." They were simply allowed to set exposed to the air of the laboratory at about 25° C. for twenty-four hours, and they dried out very markedly, losing on the average very nearly 10% in weight. They did not shrink in volume to the same extent, however, hence the Specific Volume increased. Neither did they not dry out uniformly. A cakes being the lighter on the average. No egg albumen was added to either A or B cakes. The experiment of weighing the cakes again after twenty-four hours was made to see if by drying out they would become more uniform in specific volume, as they were less uniform this procedure was stopped and all later cakes were weighed within from four to five hours after they were out of the oven.

AVERAGE WEIGHT OF 1,000 C.C. OF RAPE SEED.

These are tabulated on page 19, Table I, and are the average values used in calculating the volumes of cakes in the different bakings. The highest average is 693.2 f., the lowest, 681.3 g., giving a variation of only 11.9 g., or 1.7%. The average error in weighing 1,000 c.c. of rape seed is therefore less than 2%, and comes about through the unavoidable differences in the amount of rape seed that just fill a liter vessel. This amounts to a maximum variation of about 17 c.c. in 1,000 c.c.

TABLE II.

WEIGHT OF CAKES. SEE TABLE II, PAGE 19.

The cakes are seen to vary in weight markedly, the light-

Minimum Specific Volume	2.99
Maximum Specific Volume	3.22

	A	B
Average Specific Volume, av. of 111 cakes	3.13	3.10

—

**Excluded from the average.

†Figures in the brackets show the per cent of egg albumen added to the baking powder used in the cakes designated.

TABLE VI.

SPECIFIC VOLUME OF CAKES.

BAKED WITHOUT EGG ALBUMEN.		BAKED WITH EGG ALBUMEN.	
Baking No. 1	3.02	Baking No. 4 B	2.99
Baking No. 2	2.99	Baking No. 5 B	3.10
Baking No. 3 A	3.22	Baking No. 6 A	3.21
Baking No. 3 B	3.10	Baking No. 7 A	2.99
Baking No. 4A	3.00	Baking No. 8 A	3.20
Baking No. 5 A	3.13		
Baking No. 6 B	3.17		
Baking No. 7 B	3.06		
Baking No. 8 B	3.18		
Average	3.097	Average	3.098
Average with Baking No. 1 and 2 left out	3.123		

DISCUSSION OF DATA.

In all, 240 individual cakes out of a total of 840 cakes, in 8 different bakings extending from July 17th to August 6th, were measured.

The results are expressed in eight groups as "Average Specific Volume of Cakes." The group designated "Baking No. 3 Cont'd" is excluded from the discussion because the imum Weight of Rape Seed Displaced by Cakes" on pages 20 and 21, Table IV.

There the percentage differences are seen to be of about the same order and the averages are nearly alike, i. e. 12.6 and 13.4. It is to be expected that the variations in the "Weights of Rape Seed Displaced by Cakes" will be slightly larger than the variations in "Weights of Cakes," and this is found to be true. That is, the volumes of the cakes vary only slightly more than the weights of the cakes themselves vary. We may conclude that in the average no large variations have been involved in the measurement of the volumes of cakes.

SPECIFIC VOLUME OF CAKES.

See Table V. "Baking No. 3 (cont'd)" is excluded from this discussion as previously explained.

The final conclusion of the bakers was that no real difference could be seen in texture, odor and general appearance between the cakes A and B. Some days slight differences were thought to be noted, but were found to be due to various causes not first clearly recognized as follows:

1st. Differences in shade were found to be due to one batch having darker colored yolks of eggs in it than the other.

The eggs were not beaten outside of the cake but were beaten into the mixture by hand. In breaking eggs for the cakes, egg No. 1 was broken into a measure for cakes "A" and egg No. 2 into a measure for cakes "B," and so on; nevertheless differences in shade of the cakes due to the uneven distribution of the color of the fresh eggs resulted.

Differences in odor between two batches of cakes was found to be due to one batch being examined when warmer than the other batch. Cakes were not afterwards heated up again to observe the odor under similar conditions.

Part of the records, showing how cakes were judged by the bakers was lost, but of that left the following is interesting, but not conclusive, because of the absence of the rest. Judging began with Baking No. 3 and is lost.

Baking No. 4. Judging lost.

Baking No. 5. "A" given a slight preference. "A" contained no egg albumen.

Baking No. 6. "B" cakes a little more tender. "A" cakes have the better odor. Other differences ascribed to different amounts of working of the mix. "A" cakes contained the dry egg albumen.

Baking No. 7. "B" cakes slightly lighter in color than "A" cakes. Otherwise no difference noted. "A" contained added egg albumen.

In Table 5, page 21, is presented the "Average Specific Volume of Cakes." Here, if anywhere, in this experimental work, the superiority of baking powder containing egg albumen should appear. Such powder might make a lighter cake, therefore, one having a higher Specific Volume. It might keep the cakes from falling after removal from the oven and again produce a cake of higher Specific Volume than a powder not containing egg albumen. No such effect, however, is found. The minimum Specific Volume is 2.99. This occurs once in cakes not containing egg albumen, one time when 0.5% was present and once when 5.0% was added. The maximum is 3.22, and occurs in cakes not baked with egg albumen. Bakings No. 6 and No. 8 show 3.21 and 3.20, respectively, when egg albumen is used, but, as just pointed out, a higher figure was reached without it. The above seems to indicate that the variations in Specific Volume are merely those incident to the ordinary variation of the cakes from day to day and is far larger than any due to egg albumen in baking powder. The same conclusion is reached from an examination of the Average Specific Volume of all of the cakes so arranged, (See Table 6) that the average of cakes without egg albumen is compared with the average of cakes with it. This is 3.097 without egg albumen and 3,098 with egg albumen, which happen to be almost identical and Bakings Nos. 1 and 2 are left out of this average, then the figures stand 3.123 without egg albumen and 3.098 with it, which leaves the cakes containing no egg albumen the lightest, that is the most porous. Bakings Nos. 1 and 2 may be exexclude any possibility that the baking powder containing egg albumen made a lighter cake in these experiments. If cluded, as they were cakes bought in the store and in no wise belong to the series of bakings conprising this investigation.

Here follows the series of questions which I submitted to the Crescent Manufacturing Company, Hunt's Perfect Baking Powder Company and the Calumet Baking Powder Company on August 2nd, and their replies to the same, tabulated for comparison under the headings: "Calumet," "Crescent" and "Hunt."

August 2, 1913.

Calumet Baking Powder Co.,
Chicago, Ill.
Gentlemen:

I am making an investigation into the subject of egg albumen in baking powder and am writing to ask the following questions as I shall be glad to give careful consideration to your side of the question.

QUESTION No. 1.—Is egg albumen in baking powder necessary to preserve the leavening power of the same from deterioration? If so, why?"

CALUMET

"We herewith submit answers to the questions on the use of egg albumen in baking powder in reply to your letter of August 2nd.

1.—"No, it has no effect on the keeping qualities of the powder but its presence in baking powder is of the greatest value in that it furnishes a simple "household test" by which the condition of the powder may be roughly determined by persons without chemical knowledge.

"If a teaspoonful of baking powder containing egg albumen be placed in a glass cylinder and three teaspoonfuls of water stirred with it and the surface of the mixture closely watched it will be seen that not a single bubble of gas breaks until some time after the solution has risen to a definite height in the glass. The presence of egg albumen results in the formation of a sufficiently viscous solution to envelop each bubble of gas with a tenacious film preventing its escape, and the height to which it rises depends solely upon the gas it is capable of evolving.

"We enclose photograph A illustrating this fact. In cylinder No. 1 is one teaspoonful of Calumet Baking Powder of full strength (14.67% CO_2) and in cylinder No. 2 is one teaspoonful of Calumet of one-half strength (7.33% CO_2). The height relation of 2 to 1 is much more exact than the photograph indicates, for in practice the gas can be estimated within 1 to 2 per cent.

"This test enables our salesmen to determine the condition of our goods on merchants' shelves, whether serious deterioration has occurred through age or exposure to moisture. A sample can is taken from the stock, this test applied and if the goods show little rising power the can is sent to the factory for analysis, and if the salesman's results are verified, the goods are exchanged for fresh ones. The test serves as a protection to the dealer and insures to the consumer efficient baking powder at all times.

"This test in no way makes the powder seem better than it really is, but shows it for just what it is. It exhibits inferiority if inferiority exists.

"This test of course is impossible without egg albumen for then each gas bubble breaks as soon as formed, and no idea of the strength of the powder can be formed. In cylinder No. 3 is the same amount of Calumet Baking Powder and water. The baking powder is of full strength and differs from that in No. 1 only in that it contains no egg albumen."

CRESCENT MANUFACTURING CO.

"In response to your favor of August 2nd, we take pleasure in submitting herewith replies to the series of questions relating to the use of egg albumen in baking powder.

"While we are submitting our answers seriatim, we have not succeeded in making them quite as categorical as perhaps might be desired for the reason that most of the questions involve more or less of a discussion of the entire merit of the product as used in baking powder.

"The objections urged against the use of egg albumen in baking powder have been framed with such plausibility and yet are so thoroughly misleading that a fair consideration of the subject can scarcely be had without going into the merits of the question in reply to nearly all of the queries propounded.

"Egg albumen has been used for so many years in baking powders and the practical value of the product as thus employed is so well known, and can be so readily verified, not only by chemists familiar with the product, but by professional bakers and consumers generally that we feel confident the investigation you are now undertaking will result in the complete and absolute vindication of the product as an ingredient for baking powder, and of the merits employed by the manufacturers in using and advertising the same.

"QUESTION No. 1.—The leavening power of baking powder can be preserved without the use of egg albumen but the presence of egg albumen in baking powder acts as a preservative because it retards the chemical reaction and the development and escape of the carbonic acid gas."

THE HUNT'S PERFECT BAKING POWDER CO.

"Replying to your letter of August 2nd we take pleasure in answering the questions asked, trusting that same will be considered without prejudice, as we believe the use of this article is an improvement in the manufacturing of baking powder.

"QUESTION No. 1.—Referring to your question No. 1 we would answer No, for the reason that the substance is inert in the baking powder.

"QUESTION No. 2.—It is necessary to increase the leavening power of baking powder? If so, how does it accomplish the result?"

CALUMET BAKING POWDER CO.

2.—"It is not necessary, but its presence serves as a distinct aid in the production of 'light' food. Owing to its viscous nature it helps the gluten of the flour hold the gas in the raw dough until the cell walls around each bubble of gas can be set through cooking. The improvement is not great but is decidedly noticeable, and is especially so when what the bakers call weak flours are used."

CRESCENT MANUFACTURING CO.

2.—"If the term 'to increase the leavening power of baking powder' is intended to indicate an increase in the percentage of carbonic acid gas, we would say that it is not possible to effect this result with the use of egg albumen. The availability of the carbonic acid gas or leavening power is, however, materially increased by the use of egg albumen, and the baking powder is thereby rendered of more value to the consumer. The method of accomplishing this result is fully explained in paragraph three."

THE HUNT'S PERFECT BAKING POWDER CO.

2.—"Answering your question No. 2: Doubtless the other ingredients would enable us to give the powder proper leavening power but we believe the egg albumen makes the leavening power more available in use."

QUESTION No. 3—Does its presence enable better results to be obtained from a powder in baking than could be obtained without egg albumen? If so, please state in detail just how this is known.

CALUMET BAKING POWDER CO.

"Answered in No. 2."

CRESCENT MANUFACTURING CO.

3.—"Better results are positively obtained from a baking powder in which egg albumen is used than could possibly be obtained from the same baking powder without egg albumen. This is known from actual comparative tests in the oven and from laboratory demonstrations. The function of egg albumen in enhancing the value to the consumer of baking powder in which it is used twofold. First, to retard the reaction because of its viscous properties, giving more complete control of the gas and enabling the baking process to be carried on less hurriedly and in a more methodic and thorough manner. Second, to impart to the dough a stiffness or sustaining power which preserves the texture of the food until the process of baking is fully completed, and thus prevents the 'falling,' which so often occurs where a baking powder without egg almumen may have done its work properly, but where the process of baking has failed to synchronize with that utmost nicety which is required by many baking powders in which egg albumen is not used.

"The practical results therefore of the use of egg albumen in baking powder is to give the cook or housewife a thorough control over the development and use of the carbonic acid gas, and it is possible to secure results that are impossible without its use.

"Baking powder containing egg albumen releases its gas more slowly and uniformly under the application of a moderate oven temperature, so that a high oven temperature is not required to insure thorough baking of the food at a time exactly coterminous with the rapid exhaustion of carbon dioxide given off by baking powders containing no egg albumen. Consequently a more moderate oven heat produces better risen and better baked foods with a baking powder containing egg albumen than is possible without its use. Actual oven tests prove that an oven heat of two hundred degrees, using baking powder containing egg albumen produced as good or better results in baking than an oven of three hundred degrees temperature which was required to secure approximately the same results with a baking powder not containing egg albumen.

"The actual oven results are confirmed and corroborated by laboratory experiments of various kinds. The much abused water glass test is typical, if not technical. Allowing for the much slower action in the oven because of the lower percentage of moisture and the presence of flour and other material composing the baking, the water glass test faithfully and truthfully illustrates the relative action of baking powder with and without egg albumen. Not only is the development of the carbonic acid gas accomplished more

Food Officials Denounce Albumen In Baking Powder

***By* Dr. E. F. Ladd, Food Commissioner, North Dakota.**

"The writer has carefully investigated this subject and is convinced that primarily the use of Albumen is wrong: that it serves no legitimate purpose in baking powder and never was of material benefit to the consumer, and does not seem to have been originally introduced for the betterment of Baking Powders."

(Special Bulletin No. 18.)

***By* Hon. James H. Wallis, Food Commissioner of Idaho.**

"Albumen has no leavening power in the quantity used and it performs no legitimate function in the composition of the baking powder. It is added simply for purposes of deception."

(Ruling of July 25th, 1913.)

***By* Dr. J. S. Abbott, Food Commissioner of Texas.**

"Albumen is not a necessary constituent of baking powder. Its use in Baking Powder is to produce a foam when water is added to it for the purpose of deceiving the consumer with respect to its quality. In this respect Albumen serves a fraudulent purpose."

(Ruling No. 26.)

***By* Hon. Willard Hansen, Food Commissioner of Utah.**

"The Albumen in these baking powders does not increase the actual leavening power of the powder, but by a series of unfair and deceptive tests such powders are made to appear, to the innocent consumer, to possess three or four times their actual leavening power. Such powders therefore are adulterated."

(Bulletin 21.)

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evenly and uniformly when the egg albumen is present, but it will be observed that there is a very marked difference in the viscosity or bearing up strength of the foam. This relative difference is exactly reproduced in oven tests, and in practical baking.

"To the chemist a perhaps more satisfactory and conclusive confirmation of these claims is the difficulty experienced in many laboratories in finding in baking powder containing egg albumen the actual total amount of carbon dioxide. A baking powder composed of a specified quantity of bi-carb soda of fifty-two degrees strength and given amounts of acids and starch must upon complete reaction liberate a certain percentage of carbonic acid gas. Many laboratories testing by the usual methods baking powders made with egg albumen and known to contain 14½% carbonic acid gas, have reported only 12%, or nearly 25% less than the actual leavening strength of the powder. Confronted with the actual theoretic value of the powder these laboratories have claimed that only 12% of the carbonic acid gas is "available" because only that percentage is shown by the method of measurement applied to baking powders not containing egg albumen.

"If the chemist will approximate more nearly in his work the conditions met with in actual oven use, a lower and more uniform temperature and a more prolonged reaction and driving off of the gas, he will be able to account for the entire actual and theoretic value and will find it all 'available.' Using the same degree of heat and the usual rapidity in driving off the gas, the chemist finds that baking powder containing egg albumen clogs his apparatus; interferes with a successful demonstration and does not give off its full value in gas within the time allowed for a satisfactory measurement of values in a baking powder without egg albumen. These conditions we assert constitute a complete technical confirmation of our claim of the relative action and values of the baking powders in practical oven use."

HUNT'S PERFECT BAKING POWDER CO.

"See answer to your question No. 3 to which we answer yes. Because it entangles and holds in the dough the gas evolved by the baking powder and this property it possesses in greater degree than any other substance with which we are acquainted. It makes an additional amount of gas available."

QUESTION No. 4.—Does the use of baking powder containing egg albumen in any way lessen the amount of eggs or any other constituent, which needs to be used in cake or other pastry?

CALUMET BAKING POWDER CO.

4.—"No."

CRESCENT MANUFACTURING CO.

4.—"The presence of egg albumen in baking powder lessens the requirements for the use of egg in cake and pastry whenever eggs are used for the purpose of stiffening the dough and to whatever extent whites of eggs is introduced through the medium of baking powder containing it, the baking is enriched thereby and a correspondingly less amount of fresh whites of eggs is required. 'Cakes without eggs' are not only used freely in demonstrating the merits of egg albumen baking powders, but are being baked and used in thousands of homes."

HUNT'S PERFECT BAKING POWDER CO.

4.—"Answering your question No. 4, we would say probably, to the extent the egg albumen is present, but we would not claim that it is a substitute for eggs in baking."

QUESTION No. 5.—Is it true that some baking powders contain a low grade of egg albumen which gives a disagreeable odor to the powder and which egg albumen is made from eggs unfit for food purposes?

CALUMET BAKING POWDER CO.

5.—"Not to our knowledge. The product used by this Company is strictly the dried whites of fresh hen eggs. None is made in this country and before admitted to the United States it is examined bacteriologically and chemically in the government laboratories at the port of entry. The following experiment shows the relation which the dried egg white used by this Company bears the fresh egg.

$$\text{Whole egg—53.6989 grams} \quad \frac{27.36}{53.70} = 50.95\%$$

60.3106
flask 32.9457
white 27.3649 grams

"White separated as completely as possible and weighed in wide mouth flask. Dried in slow stream of dried air under reduced pressure (about 11" of mercury) at 40 c. for 9 hours when visible moisture had disappeared. Temperature then raised to 50 c. for 3 hours and weighed.

38.1571
32.9457
5.2114

"At this stage the material still contained a good deal of water, was of a light amber color, perfectly transparent, showing no sign of coagulation, was rubber-like in consistency and of course could not be powdered in this state.

"The flask was connected up with the apparatus again and the drying continued at 50 c. for 4 hours and weighed again.

36.7652
32.9457
3.8195

"The material did not appear to be sufficiently dry for powdering. The drying was continued for 2 hours more and weighed.

$$\begin{array}{ll} 36.7331 & 3.787 \\ 32.9457 & \text{———} = 7.05\% \\ \text{———} & 53.70 \\ 3.7874 & \end{array}$$

"Continued drying showed a further loss of weight but the operation was stopped at this point and this weight taken, as the material seemed to be in the same condition as the product used on the large scale after drying and before grinding.

"The whole egg furnishes 7.05% of dried albumen as we use it. One pound of the dried egg albumen is equivalent to 14.17 pounds of fresh eggs, or 120 average sized eggs.

$$\% \text{ dry albumen of wet albumen} = \frac{3.787}{27.36} = 13.84\%$$

CRESCENT MANUFACTURING CO.

5.—"We have never been shown a sample of, or quoted a price on, a low grade of albumen that would give a disagreeable odor to the powder, or that was unfit for food purposes, and we do not believe such a commodity is on the market or can be purchased. Our information and belief is that it would be difficult, if not impossible, to successfully dehydrate and crystallize eggs that are unfit for food purposes. Egg albumen is commercially available for use in baking powders consists of two kinds—hen egg albumen and duck egg albumen. The latter is cheaper in price because the eggs from which it is made (duck eggs) are usually in less demand and lower priced than hen eggs. The viscosity or beating value of the two kinds of egg albumen does not vary greatly as to whether it is of hen or duck origin. Often the latter is superior in quality in this respect. The beating value or viscosity of either hen or duck albumen may differ quite considerably in various samples as a result of carelessness in processing. If the product is overheated during evaporation or crystallization, coagulation will occur, to an extent determined by the excess amount of heat and the portion that may be coagulated is rendered valueless for beating purposes, but is not rendered unfit for food as it is simply whites of eggs cooked.

"Since egg albumen is nothing more or less than the whites of eggs in a highly concentrated form, it very naturally possesses a characteristic odor. This odor, however, cannot be correctly described as disagreeable, except perhaps to a baking powder manufacturer, who does not use it in his product. As used in baking powder the slight natural odor of the egg albumen is not discernible because of the relative small percentage used, and because it blends with the more pronounced fragrance of the corn starch used as a dryer."

HUNT'S PERFECT BAKING POWDER CO.

"Answering your question No. 5 we cannot say as to other baking powders. We believe this argument has been used by competitors, but doubt if they could bring any substantial proof, for reasons stated in answer to your question No. 7."

QUESTION No. 6.—Is egg albumen needed in any special type of baking powder more than in any other type (tartrate, alum, phosphate) and if so why?

CALUMET BAKING POWDER CO.

6.—"No."

CRESCENT MANUFACTURING CO.

6.—"Egg albumen can be successfully used in any type of baking powder. Tartrate baking powder in order to be of most value to the consumer has more need of egg albumen than any other type of powder for the reason that tartrate powders are in the very nature of their composition extremely effervescent and the development of the carbon dioxide

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is not under the control of the cook to even a reasonable extent. A ruling that would require baking powder manufacturers, particularly those selling a tartrate powder to include egg albumen in their formulas in order to give the consumer fair value for his money might be more easily defended than one prohibiting its use. Any type of baking powder is a better baking powder, and worth more to the consumer if it contains egg albumen."

HUNT'S PERFECT BAKING POWDER CO.

6.—"In answer to your question No. 6 we would say No, not that we are aware of."

QUESTION No. 7.—What is the grade and price of the egg albumen you use?

CALUMET BAKING POWDER CO.

7.—"Strictly prime fresh hen egg white dried at a low temperature. The price has ranged during the last 10 years from 50½c to 70c per pound. Our last purchase in July this year was for 2200 pounds at 50½c, the lowest it has ever touched."

CRESCENT MANUFACTURING CO.

7.—"Our selections of egg albumen are made indifferently from the hen or duck product, and we buy those lots that show the highest percentage of beating strength or viscosity, whether they be hen or duck. The price of hen albumen ranges from about 50c to 75c per lb. according to market conditions, and not according to quality, which does not vary to any extent. Duck albumen fluctuates upon the same basis and along with hen albumen and is usually about 10c per pound cheaper. These figures represent market values of the crystallized product. The process of pulverizing albumen for use in baking powder is difficult and involves a considerable amount of shrinkage in weight, both considerations increasing the cost of the pulverized product about 6c to 8c per pound."

HUNT'S PERFECT BAKING POWDER CO.

7.—"Answering your question No. 7 we would say we use only the best albumen, the dried albumen of fresh hen eggs. This article is imported and before admittance into the country it is examined bacteriologically and chemically in the government laboratories. It is imported in the form of crystals and powdered by the importers and purchased by us in that form. We buy our supplies from M. L. Barnett and Company, Chicago, paying from 60c to 70c a pound for same."

QUESTION No. 8.—What per cent of egg albumen do you use in your powder?

CALUMET BAKING POWDER CO.

8.—No answer.

CRESCENT MANUFACTURING CO.

8.—"The exact amount of egg albumen used in our baking powder is determined by the quality of the albumen, as measured in beating strength, which is not standardized. We use sufficient to standardize our product and when the available supply runs low in viscosity, we increase the amount used in our formula and decrease the amount when the quality is above the standard. The amount used by each manufacturer should be determined after extended experiment and demonstration to secure the best results in the oven, and is governed largely by the quantity and nature of other ingredients."

HUNT'S PERFECT BAKING POWDER CO.

8.—"Answering your question No. 8 from 1.20 to 1.10 of 1%."

QUESTION No. 9.—What considerations determine the upper and lower limits of the per cent of egg albumen in a baking powder?

CALUMET BAKING POWDER CO.

9.—"The obvious upper limit would be the substitution of egg albumen for the starch; and this would not be advisable even if questions of cost did not enter, for it has none of the moisture absorbing qualities of dry starch and the stability of the powder would be lessened. Also the egg albumen itself might spoil unless there was sufficient moisture absorbing material to protect it from moisture.

"For the lower limit, enough must be used to accomplish the purposes detailed above."

CRESCENT MANUFACTURING CO.

9.—"As indicated in paragraph eight, this is a question that each manufacturer must determine for himself. The use of even a very small amount of egg albumen is an advantage. On the other hand, the high cost of the material will restrict its use to the amount considered most effective by the manufacturer and while an excess amount would interfere with the proper action of the baking powder, its presence in the food would have no other disadvantage. In this connection it should be remembered that the natural whites of eggs is largely water and that a pound of egg albumen is equal to the whites of ten dozen eggs, and that one oz. of egg albumen represents more than seven ounces of fresh whites of eggs. This point is usually not made prominent when the opponents of the use of egg albumen refer to the relatively small percentage that is used in baking powder."

HUNT'S PERFECT BAKING POWDER CO.

9.—"Answering your question No. 9 we are governed by experience in the matter and do not believe a larger amount would be of special benefit. This substance is imported in very concentrated form; only about 7% of the weight of the egg is found in the dried albumen. One pound of the dried albumen is equivalent to over 14 pounds of fresh eggs which would be about 120 average size eggs."

In regard to these answers I would call attention to the following:

Calumet No. 1, Page 27.—The value of adding egg albumen to baking powder for a "household test" of its strength is lost because a standard of baking powder of known gas value would have to be present for comparison and such conditions are not found in one home in a thousand.

Regarding value to salesmen in checking up deterioration, each salesman could carry egg albumen with him, add it to a suspected powder, and then carry out the test far more easily than a housewife could test baking powder under the present arrangement.

Crescent No. 1, Page 28.—Egg albumen would have no preservative effect when present in the extent of only 0.05 to 0.1%. See Hunt's answer to question 8, page 35. Compare with Hunt No. 1, page 28.

Calumet No. 2, Page 29.—"It is not necessary." The data above do not bear on weak flours as no experiments were made on such.

Crescent No. 3, Pages 29 and 30.—First. The bakings above were carried out by the bakers in an entirely methodical and unhurried manner. Regarding paragraph (b) page 30, no experiments were carried out to test the effect of baking at different temperatures and the temperature of the oven was not taken during baking.

Paragraph (c) page 30 is opposed by the fact that in baking, the flour, etc., more than replaces the dried egg present in the powder alone in the glass test.

Paragraph (d) page 30.—That egg albumen in a baking powder interferes with its analysis in the laboratory is probably true, but this fact in no wise demonstrates its superiority in baking. If a chemist were to add, instead of dried egg, an equivalent amount of flour, sugar, shortening, etc., to his chemical test of a powder, it would doubtless be entirely impossible to determine the available carbon dioxide, but such a fact would not demonstrate the superiority of a powder so treated. The chemical testing of baking powder and its use in baking are no more comparable than the use of a horse for racing purposes is comparable with his use for heavy trucking.

Crescent No. 4, Page 31.—Cakes without eggs are also baked without the use of egg albumen baking powder. Contrast Calumet, Crescent and Hunt.

Calumet No. 5, Page 32.—The conclusions are misleading as 49% of the whole egg is here discarded as yolk and shell. The last three lines on the page must be amended as follows: The whole egg furnishes 7.05% of dried albumen as we use it, and 13.44% of dried albumen as compared with the wet albumen of the fresh egg. One pound of the dried albumen is NOT equivalent to 14.17 pounds of fresh eggs because 49% of 14.17 pounds—6.94 pounds have been discarded in the yolk and shell. Therefore one pound of dry albumen is equivalent to 7.23 pounds of wet albumen and the other 6.94 pounds of egg yolk, etc., are disregarded.

Question No. 6, Page 33.—Calumet and Hunt controvert Crescent.

Crescent, page 34.—If tartrate powders are more in need of egg albumen than any other variety then the above baking tests should have indicated this fact as a tartrate powder was used throughout.

Calumet No. 9, page 35, controverts Crescent No. 1, page 28.

Crescent No. 9.—The last two lines on page 35 are correct. Taking this as a basis and also Hunt's answer No. 8, page 35, one pound of dried albumen would be found in 1000 pounds of baking powder. Therefore every 1000 pounds of baking powder would contain the whites of 120 fresh eggs and one pound would contain the whites of 0.12 of one fresh egg. What part of a fresh egg, it may be asked, would be present in the usual two spoonfuls of baking powder used by the cook? CERTAINLY LESS THAN THE WHITES FROM 1-100 of one fresh egg.

The following letter was addressed to Mr. Rew, Chemist and Vice President of the Calumet Co. His reply of Sept. 5 follows.

Get the Genuine JELKE GOOD LUCK MARGARINE in this package



Refuse imitations offered in similar cartons

If your dealer cannot supply you, write or phone us and we will see that you are supplied.

ORDER A PACKAGE TODAY

JOHN F. JELKE CO.
CHICAGO

Bergoust-Davies Company, Inc.,
Seattle, Wash.,

Manufacturers of

Cider Vinegar, Pickles, Sauer Kraut, etc.

SPIELMANN BROS. CO.

MANUFACTURERS OF

CIDERS, VINEGARS & COMPRESSED YEAST

MAIN OFFICE
Sheffield and North Aves.
CHICAGO, ILL.

Canned Salmon

ALL GRADES ALL SIZES

Largest Distributors in the World

KELLEY, CLARKE CO.
SEATTLE, U. S. A.

HENNING'S HIGH GRADE PRODUCTS

Distilled Grain Vinegar, Cider Vinegar,
Fermented Sugar Vinegar,
Catsup, Prepared Mustard, Sauces,
Olives, Sauerkraut, Pickles.

Wm. Henning Co., - Chicago
MANUFACTURERS AND PACKERS

Illinois Vinegar Mfg. Company

19th and Rockwell Streets
CHICAGO, ILL.

MANUFACTURERS OF HIGH GRADE
DISTILLED VINEGAR

NATURAL FRUIT FLAVORS

FOR USE OF MANUFACTURERS
C.X.C. LEMON, C.X.C. ORANGE, C.X.C. LIMES
Soluble, Concentrated, Terpeneless
FOOTE & JENKS, Sole Mnfrs., Jackson, Mich.

Victor Chemical Works

New York Chicago St. Louis

Phosphates, Baking Powder Materials, Epsom Salts

Mr. Geo. C. Rew, Boise, Idaho, August 22, 1913.
201 E. Ohio St.,
Chicago, Ill.

Dear Sir:

(a) After talking with Mr. Grosvnor who represented your company here a day or so ago he said that he felt sure you would be willing to make a statement in regard to the amount of egg albumen in your goods.

(b) I will tell you as I did Mr. Grosvnor that I care nothing about the exact amount you add, I simply wish to know the order of the magnitude and would appreciate it if you could say, not less than 0.1% or more than 0.4% or something like that, choosing your own limits but stating such limits as you believe it would be useless to exceed.

(c) Do you believe there is a point beyond which the addition of egg albumen would be useless and would give no improvement in the product? I mean to exclude in this question any such large amount of egg albumen as would tend to toughen the product. For example: If you usually add an amount of egg almumen which may be designated by (a) would (5a), in your opinion, produce no appreciable improvement over that caused by (a)? Or would (5a) be better than (a) but not enough better to warrant the extra expense?

(d) My sole purpose in directing these and other questions to various baking powder manufacturers is to arrive at the real merit of egg albumen in baking powder and give its friends an opportunity to show experimental work which in measurable terms demonstrates the usefulness of egg albumen. We could then verify these experimental results and see, as you see, the value of this ingredient.

(e) I have been carrying out some experimental bakings and expect to continue them for some time in the future and would be very glad if you would care to suggest some experimental work, which in your opinion, best demonstrates the superiority of baking powder containing egg albumen. I wish to arrive at such results as will make the effect of egg albumen measurable so that comparative figures will result.

(f) Mr. Grosvnor showed me a copy of your brief presented to the commissioner of North Dakota and if possible I would very much like to have a copy in my office. He also said something about the amount of baking powder which deteriorates and which is sent back to the factory through your sales force. This surprised me a good deal because some work which I have been carrying on for about three years had convinced me that deterioration of baking powder in hermetically sealed containers is not at all serious. If you care to make a statement of the per cent of baking powder that falls enough to cause its shipment back to the factory I would be very glad to increase my information on this point.

Thanking you for your consideration of the above, I am

Very truly yours, State Chemist.

Chicago, Ill., Sept. 5, 1913.

Mr. J. Louis Jackson.
State Chemist, Idaho State Board of Health,
Boise, Idaho.

Dear Sir:

We are taking the opportunity offered by your letter of August 22nd, to make a general statement defining the position of this Company in this unfortunate controversy over the use of egg albumen in baking powder.

We make but one kind of baking powder, which we sell under but one brand, "Calumet Baking Powder." It is the type known in the trade as an "Alum Phosphate" powder and is a mixture of Sodium Bicarbonate, Sodium and Auminuim Sulphate variously known in the trade as "Soda Alum," "S. A. S." or "C. T. S.," Mono-Calcic Phosphate, Egg Albumin, or Dried White of Eggs and Corn Starch. Every package is labeled in brevier gothic capitals: "This baking powder contains the following ingredients and no other: Soda, Acid Phosphate, Alum, White of Egg and Corn Starch." Egg albumin has been a material and in a sense identifying constituent of our product during all of the time we have been in business, upwards of twenty-two years, and its presence has been announced upon our labels together with the other four ingredients for fifteen years. Our labels have shown the composition of our goods, in this form, whether the state in which they were sold had a statute requiring it or not. This requirement is far from universal now.

Owing to its power of forming liquid films of great tenacity, egg albumin in baking powder serves two purposes of practical value: (a) Its presence makes possible a simple test whereby the leavening power of the powder may be roughly estimated and serious deterioration at once detected, and (b) although it produces no gas itself, it aids in a small but appreciable degree in producing "light" food by helping the "gluten" of the flour to hold in the raw dough the gas evolved by the powder until the cell walls surrounding each bubble of gas can be set through the cooking of the dough.

(a) Baking powder is purchased for, and owes its efficiency as a leavening agent to, its power of evolving carbon dioxide on the addition of water. Unfortunately, it cannot be made a stable mixture. In spite of all manufacturing precautions the reaction which should only take place in the dough when the powder is used will occur to some extent in the can through age or exposure to abnormal conditions of moisture. With the quantity of powder usual in domestic practice a baking powder should be capable of evolving not less than 12% of its weight of carbon dioxide in order to produce the best possible results. A powder of ten to twelve per cent will make fairly acceptable food, but below ten, the baking will be poor and the consumer who has paid full price for such a powder has been defrauded. The consumer is justly protected in some states by statutes making a powder evolving less than 10% of gas illegal. The manufacturer who expects to build up a large and permanent business must see to it that no package of his product reaches the consumer in an inefficient condition.

If a teaspoonful of baking powder containing egg albumen be stirred with three or four teaspoonfuls of water in a suitable vessel it will be seen that the solution of egg albumen formed is sufficiently tenacious to prevent the bursting of any gas bubbles and that the mixture will rise to a definite height depending upon the amount of gas the powder is capable of evolving. With a little practice and no other apparatus than a glass cylinder and a teaspoon it is possible to detect differences of one to two per cent in available gas. Calumet Baking Powder when fresh will evolve over fourteen per cent of gas so that by this method it can be quickly determined whether the powder is in perfect condition or whether deterioration has started and to what extent it has gone.

It is the practice of this company to guarantee to the dealer to keep his stock in an efficient condition without cost to him. We authorize him to refund to the consumer the price paid for any can returned to us as unsatisfactory for any cause and we agree to pay him the full retail price for such can returned. While every can bears the date of manufacture, this alone is not a guarantee of condition, for no two shipments have been submitted to the same conditions of handling and storage. When a salesman of this company in his visits to the trade sees goods bearing an old date or looking shopworn, he applies this test and if the powder shows a gas deficiency he orders the goods exchanged for fresh. When he obtains from a dealer a can complained of, he applies this test and is able to judge whether the complaint is just or not, and sends the can to the factory with the comment "tests all right," or, "looks like old goods." We attribute much of the reputation for dependability which Calumet Baking Powder enjoys to the persistent application of this test during our 22 years of experience. Of course, if egg albumen is not present, this test is impossible, as each gas bubble breaks as soon as freed, and no idea of the amount of gas can be formed. The powder may be very strong or very weak.

A can of baking powder is not a "hermetically sealed" package. The seams are "bumped," not soldered, and the "slip cover" is held in place only by the pasted label. Exposure tests in the laboratory and experience in the trade in various climates have demonstrated that a powder will "keep" for a considerable time without material gas loss, and then deteriorate to an inefficient condition very quickly. There are two periods, the first of considerable length depending upon the severity of conditions the second relatively short. The reaction once started goes quickly to the end and we explain this fact to the formation of water as a product of the reaction. During the year ending June 30th, 1913, we exchanged fresh goods for old in the amount shown below in money, at the wholesale price, and amounting to 161,606 pounds:

July, 1912	$2,260.35
August	2,401.22
September	2,361.84
October	1,726.47
November	1,663.13
December	1,548.48
January, 1913	1,350.94
February	1,743.55
March	1,905.52
April	2,485.54
May	2,132.27
June	2,351.47
	$23,930.78

There Is

CLEANLINESS, HEALTH INSURANCE, ECONOMY AND CONVENIENCE IN



Our **PET**

BRAND

Evaporated Milk

The Standard of the World

WINS AND HOLDS TRADE

on account of its Superior Quality.

Prepared by

HELVETIA MILK CONDENSING CO.

Highland, Illinois

ORIGINATORS OF EVAPORATED MILK

TAKE WARNING!

at the first signs of foul odors arising from sewers, drain pipes, damp cellars, under porches, in lavatories, wash basins, sinks, cooking vessels, cream separators, churns, milk cans, pails and refrigerators.

Look Out For Disease

Foul odors are nature's warning of the presence of the death-dealing Bacteria. Don't neglect the health of your loved ones. Don't invite typhoid, scarlet fever, diphtheria and other fatal diseases. Remove the cause. Destroy the germs. Kill all odors. Make and keep every nook and corner of your home sweet, clean, pure and safe. Use

B-K
Bacili-Kil
Trade Mark

The wonderful new discovery. A germ destroyer 10 times more powerful than carbolic acid, still NON-POISONOUS to human and animal life.
Just sprinkle or spray a dilution of this powerful disinfectant where needed and watch results. B-K contains no oils, tar, or acid—won't affect the flavor of food kept near it—leaves no disagreeable odor after using.



FREE Sample on Request

If you will write us at once mentioning this paper we will be glad to send you FREE a sample of B-K to try. You will find it indispensable in the home because of its wonderful effectiveness and freedom from danger in use. As a gargle or spray for sore throat, as a mouth wash, or for cleansing and healing cuts, sores, wounds and bruises, and for rectal and vaginal use where a reliable disinfectant is required, it has no equal. B-K is surprisingly inexpensive. It **Costs Less, Goes Further and Does More** than any other disinfectant you can buy. Write for FREE sample today. Address—

The General Purification Co.
Pioneer Bldg. Madison, Wis.



KINGSFORD'S CORN STARCH

THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts — and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

The presence of the egg albumen does not make the powder seem better than it really is, but shows it for just what it is. It exhibits inferiority if inferiority exists. It furnishes a rough but dependable volumetric method of approximating the gas strength and is a protection to the consumer against low test spoiled baking powder.

(b) If the generally accepted explanation of the fact that some flours bake larger, lighter loaves because of the larger amount and higher viscosity of the gluten be true, the gas retention is quite as important as gas supply. (Technology of bread making, Jago P. 330 Baker & Hulton.) Where yeast is used an uninterrupted supply of leavening gas continues until the fermentation is stopped by the high temperature of the oven. There is an indefinite supply of gas. With baking powder the amount of gas available is strictly limited to a definite, fixed quantity depending upon the skill and quantity of chemicals used. Therefore, to secure the best results with baking powder care must be taken to conserve and make efficient this limited amount of gas. The addition of egg albumen to baking powder results in materially increasing the viscosity of the "mix" and whether its results are great or small it is a step in the right direction. Its effect is most noticeable when the so-called weak flours are used.

The egg albumen used by this company is strictly the whites of fresh hens' eggs dried at a low temperature. Before admission to this country it is examined bacteriologically and chemically in the government laboratories. It is a clean and wholesome product to which no possible objection can be raised in spite of the false statements of some competitors in their advertising that it is a serum or bloos albumin, "a filthy product of the stock yards," "soarp bark," etc. The imported egg albumen cannot be used as we receive it, as it contains variable amounts of water and too large a quantity to be powdered. It is necessary to redry, grind and bolt it. It is aimed to use such a quantity of the redried product as will result in the finished baking powder containing the equivalent of about one and one-half per cent of the whites only of fresh hens' eggs.

Since 27.36 g. fresh whites of eggs yield 3.787 g. of dried egg as used in baking powder (page 32) the dry egg white equals 13.84% of the fresh egg white. Therefore 1.5 lbs. fresh egg white equals 0.21 lb. dry egg white per 100 lbs. of baking powder or 0.21%.

It may be pertinent as explaining some of the answers you will probably receive from companies who do not use egg albumen to call to attention the advertising history of the baking powder business as shown in "advertising Exhibit Book," photographs 1-18 inclusive, enclosed. This record is far from complete but it is typical and covers the period from the early seventies to Aug. 1913, and shows the origin of the causes that have made this business unique among commercial enterprises in that in order to survive in the struggle for trade, it has been necessary for manufacturers to divert some of the energy of extolling their own goods, to attacks upon the product of their competitors.

This was the trade condition at the time this company was organized, and had existed for nearly twenty years previously. Photograph No. 1 is the reproduction of an advertisement of the Royal Baking Powder Co., then an independent company. This was the first of this type of advertising and attracted national attention. It had no basis of fact or fairness and brought from the manufacturers attacked replies in kind. It started the "Baking Powder War."

During this trade struggle the names of men prominent in medical or chemical science were used in a wholly unauthorized way, legislators and boards of health corrupted or hoodwinked, fraudulent societies organized, resolutions condemning competitors' products or extolling their own engineered through legitimate bodies having to do with public welfare, in order to gain trade advantage. In all of this, this company has taken no part. It has never sent a representative to a legislative or administrative official except to defend itself, never to gain a trade advantage. It has fought its trade fights in the trade.

When compared with its competitors' methods any advertising of this company complained of becomes insignificant and certainly in a sense justified. Of all the printed advertising of this company, there is but one advertisement which could possibly be criticised and that has been eliminated from all newspaper and circular advertising. It was printed but twice, March 4th and March 21st, 1913, simultaneously in 100 dailies out of a total of 4562 papers in which we advertise.

The phenomenal growth of our business, due to the reliability and dependable efficiency of our product and our organization and business policy, has placed this company, in volume of business, in the very front rank and has naturally resulted in a loss of trade by our competitors. This has resulted in our being made the object of attacks entirely in keeping with the history of the baking powder business. Whether the present agitation against the use of egg albumen, a confessedly wholesome product, after 22 years of unquestioned use, originated with our competitors or not, they have taken advantage of the situation to inflict very serious injury upon those companies using it. Their salesmen exhibit to merchants the rulings of Idaho, Utah and North Dakota, advise them to return to the manufacturers goods containing egg albumen, to cancel orders and to refrain from further purchases. They have even gone so far as to impersonate state food inspectors and in their names have called merchants by telephone and threatened prosecution if they continued to sell such and such powders, giving the names of brands containing egg albumen.

We have earnestly made and are continuing to make every possible effort to prevent untruthful statements and unwarranted claims by our demonstrators and salesmen. We quote from a recent general letter of instructions to our representatives in regard to this test:

"It is not necessary to make any misrepresentations based on this test. Neither is it necessary to misrepresent Calumet or our competitors' goods. Let them both stand on their merits and Calumet will win. We want you to thoroughly appreciate the importance of this test properly made and to make it whenever possible, but we insist that you make it fairly and honestly, and make it show for just what it is without any exaggerated or foolish claims.

"We want the test made in a straightforward, honest way, confining yourself to the facts, and bringing out the following points:

"First: Its value in furnishing an easy method of approximating the condition of the baking powder on the shelves of the merchant.

"Second: That the viscous nature of the white of egg in solution, results in the retention of the gas created.

"Third: That all mixes have this viscous nature in a variable degree. If this were not so, no baking powder or yeast would serve its purpose at all. White of egg in the baking powder increases the viscosity of the mix and in this way aids in producing light food.

"Fourth: When testing Calumet against a competitors' goods which do not contain white of egg, show the dealer how the gas is retained with Calumet, not a single bubble breaks during the test, and that under these conditions the height to which it rises is a measure of its strength. Show him how each bubble of the other breaks as soon as formed so that no estimate can be made of its strength. It may be very strong or very weak. Do not state that the heights to which two powders (one with and the other without white of egg) rise indicate their relative strength."

The number of concerns who do not use egg albumen is much larger than those who do, and if your letter of August 2nd has been pretty generally sent to the baking powder manufacturers, some of the former class will no doubt seize the opportunity to attack its use, keeping in strict harmony with the spirit and record of the baking powder business.

Respectfully,

CALUMET BAKING POWDER CO.,

(Signed) Geo. C. Rew,
Vice President.

The data submitted on page 5 of Mr. Rew's letter, in reply to paragraph (f) of my own, are very interesting and instructive. Whether or not the presence of egg albumen in baking powder is fully justified or not if it allows a manufacturer to thus check up his product and guarantee its high standard, and to detect and remove from the market such large quantities of deteriorated powder, is a question which does not require chemical investigation for its decision. I therefore make no comment on this point.

Certain points raised by Mr. Grosvenor representing Calumet Co., and by Mr. Rew, should have consideration in an experimental way before one arrives at a final conclusion in regard to the fitness of egg albumen as a constituent of baking powder. These points briefly are:

1. That egg powders enable one to bake successfully at lower temperatures than otherwise.
2. That egg powders yield results superior to non-egg powders in the use of weak flours.
3. That in the case of the unskilled cooks better results can be obtained with an egg powder than with others.

These points are important and can be tested by properly planned experiments.

Finally it should be pointed out that but one kind of pastry was used in the foregoing tests and it cannot be claimed that

other results might not be obtained in the case of biscuits or other products.

CONCLUSION.

However, my conclusion from the above experimental work is, that the addition of egg albumen to the baking powder used in baking cup cakes was entirely without any measurable result and without any observable effect that could be seen by two experienced cooks.

Respectfully submitted,
State Chemist.

Sept. 13, 1913.

NEW FOOD CONTROL OFFICIALS.

The Illinois pure food department has a new chief clerk and chemist. These were appointed during the past month and are both now in active service.

The chief clerk is Geo. F. Miner of Shelbyville. Mr. Miner is a handy man in the management of a department loaded down with detail, and his friends are certain that he will prove a creditable addition to Commissioner Matthews' staff.

Dr. J. C. Johnstone, who occupies the chemist's chair, was for some time connected with the Chicago board of health and as a specialist of that department made a very creditable showing. In his new position Dr. Johnstone will have a wider field of operation, and it is expected he will make his department all that it should be.

T. P. Sullivan, former president of the National Retail Grocers' Association, has been made a member of the state food standard commission. Mr. Sullivan is one of the best known men in Illinois in the grocery field, and his appointment to this important position will give very general satisfaction. As Mr. Sullivan has spent the better part of an active life in the grocery business and in association work he is peculiarly qualified for the place he has been given on the board. He is thoroughly practical and enters into the spirit of any work he attempts to perform. Mr. Sullivan will surely make his presence on the commission felt.

"We have prosecuted more cases this year than ever before," was the statement made by C. T. Barman, drug inspector for the southern district of Ohio, who has been in Dayton making an inspection of local pharmacies.

Have New, Pure Food Product of demonstrated value; wish to communicate with millers, roasters, or pure food manufacturers; Chicago or vicinity preferred. J. R. L., care American Food Journal.

FOR SALE—A canning factory; fully equipped and modern in every way. Additional capital required; present interests will take part stock, and would consider real estate trade as partial consideration. Plant located in the west, and supplying markets of eight states. Brands successfully established. Abundant raw material. A splendid chance for an investor desiring a live and active business. Address R. C. C., care The American Food Journal.

Food and Drug Law

McLanahan & Burton announce the initiation of a Department of Food and Drug Law, in charge of Mr. Gustavus B. Spence, for the past four years a member of the Office of the Solicitor, United States Department of Agriculture.

Appearances before all Boards and Bureaus of the Department of Agriculture and other Federal Departments, State Food and Dairy Commissions, and in State and Federal Courts. Correspondents in every State.

Revision of labels and advertising literature.

McLANAHAN & BURTON

Union Trust Bldg., Washington, D. C.

THE REFEREE BOARD APPOINTED BY THE U. S. GOVERNMENT HAS FOUND THAT

"Saccharin in small quantities (3/10 of a gram per day or less) added to food is without deleterious or poisonous action and is not injurious to the health of normal adults." 3/10 of a gram daily is more than would be used to sweeten **all** the food which a normal adult usually takes per day, if everything he eats and drinks is sweetened.

Saccharin does not abstract from the food value of other food, it only adds a flavor to it. Sugar replaces a certain quantity of other food, and if what it replaces is of higher food value than sugar, as most things we eat are, the sugar abstracts from the food value. This is a fact—as paradoxical as it may seem.

Many people with delicate stomachs or suffering from diabetes, are not allowed to take sugar, because it endangers their health—should they be prevented from buying any prepared food sweetened with Saccharin, the only available sweetener they can partake of with impunity?

The American Medical Association says in its book entitled "Useful Remedies": page 26: "Properties and Uses: 'Saccharin, usually mixed with an equal weight of sodium bicarbonate, is used as a substitute for sugar in sweetening articles of food intended for diabetic patients.'"

According to F. I. D., 146, Saccharin must not be used in any food even if the consumer is told by his doctor that he must eat Saccharin-sweetened food. Why? A declaration on the labels of foods stating plainly when Saccharin has been used would eliminate any possible deception of the consumer.

AMERICAN CONDIMENTS CO.

Chicago Branch: 230 W. Randolph St. **44 Vesey St., New York City**

DIRECTORY
OF FOOD CONTROL OFFICIALS

NATIONAL OFFICIALS.

Department of Agriculture, Washington, D. C.
David Franklin Houston, Secretary.
B. T. Galloway, Assistant Secretary.
A. D. Melvin, Chief Bureau of Animal Industry.
Carl Lucas Alsberg, Chief Bureau of Chemistry.
W. G. Campbell, Chief Food and Drug Inspector.
G. E. Patrick, Chief Dairy Laboratory.
Dr. L. F. Kebler, Chief of Drugs Laboratory.
J. K. Haywood, Chief of Miscellaneous Division.
L. M. Tolman, Chief of Washington Food Inspection Laboratory.
A. L. Sullivan, Chief of Boston Laboratory.
W. L. Dubois, Chief of Buffalo Laboratory.
A. L. Winton, Chief of Chicago Laboratory.
B. R. Hart, Chief of Cincinnati Laboratory.
R. F. Hiltner, Chief of Denver Laboratory.
H. L. Schulz, Chief of Detroit Laboratory.
F. W. Liebsner, Chief of Kansas City Laboratory.
W. J. McGee, Chief of New Orleans Laboratory.
R. E. Doolittle, Chief of New York Laboratory.
S. H. Ross, Chief of Omaha Laboratory.
C. F. Brinton, Chief of Philadelphia Laboratory.
M. C. Albrech, Chief of Pittsburgh Laboratory.
E. L. Lyman, Chief of Portland Laboratory.
H. M. Loomis, Chief of San Francisco Laboratory.
W. C. Burnett, Chief of Savannah Laboratory.
R. W. Hilts, Chief of Seattle Laboratory.
A. W. Hamsen, Honolulu, H. I.
A. E. Taylor, Chief of Porto Rico Laboratory.

BUREAU OF ANIMAL INDUSTRY.

A. D. Melvin, Chief of Bureau.
R. P. Steddom, Chief of Inspection Division.
B. H. Rawl, Chief of Dairy Division.
M. Dorset, Chief of Division of Biochemistry.

BOARD OF FOOD AND DRUG INSPECTION.

Carl Lucas Alsberg, A. S. Mitchell, H. M. Loomis.

REFEREE BOARD OF CONSULTING SCIENTIFIC EXPERTS.

Dr. Ira Ramsen, Dr. John H. Long, Dr. Russell H. Chittenden, Dr. Alonzo Taylor, Prof. Theobald Smith.

PHILIPPINE ISLANDS—H. D. Gibbs, Chief Chemist Bureau of Science, Manila.

PORTO RICO—Rafael del Valle Sarrage, Chemist, San Juan.

STATE OFFICIALS.

ALABAMA—C. H. Billingsley, Food. Drug and Feed Clerk, Pure Food Bureau, Montgomery.

ARKANSAS—John H. Page, Commissioner of Mines, Manufacturers and Agriculture, Little Rock.

Dr. C. H. Hoffman, Department Chemist, Little Rock.

CALIFORNIA—M. E. Jaffa, M. S., Director State Food and Drug Laboratory, University of California, Berkeley.

COLORADO—George T. Bradley, State Food Commissioner, Denver.

CONNECTICUT—Hon. Hubert F. Potter, Dairy and Food Commissioner, Hartford.

DELAWARE—A. E. Frantz, M. D., Secretary, State Board of Health, Wilmington.

DISTRICT OF COLUMBIA—William C. Woodward, M. D., Health Officer, Washington, D. C.

FLORIDA—R. E. Rose, Chief Chemist, State Board of Agriculture, Tallahassee.

GEORGIA—R. E. Stallings, Chief Chemist, State Board of Agriculture, Atlanta.

IDAHO—James H. Wallis, State Dairy, Food and Sanitary Inspector, State Sealer of Weights and Measures, Boise.

ILLINOIS—W. Scott Matthews, State Food Commissioner, Chicago.

INDIANA—H. E. Barrard, State Food and Drug Commissioner, Indianapolis.

IOWA—W. B. Barney, State Dairy and Food Commissioner, Des Moines.

KANSAS—S. J. Crumbine, M. D., Secretary State Board of Health and Chief Food and Drug Inspector, Topeka.

E. H. S. Bailey, Ph. D., Chemist State Board of Health, Lawrence.

Julius T. Williard, Chemist, State Board of Health, Manhattan.

KENTUCKY—R. M. Allen, Head of Food and Drug Division, Agricultural Experiment Station, Lexington.

LOUISIANA—Dr. Oscar Dowling, State Food Commissioner, New Orleans.

Geo. B. Taylor, State Analyst, New Orleans.

MAINE—Chas. D. Woods, Director, Agricultural Experiment Station, Orono.

MARYLAND—Charles Caspari, Jr., State Food and Drug Commissioner, Baltimore.

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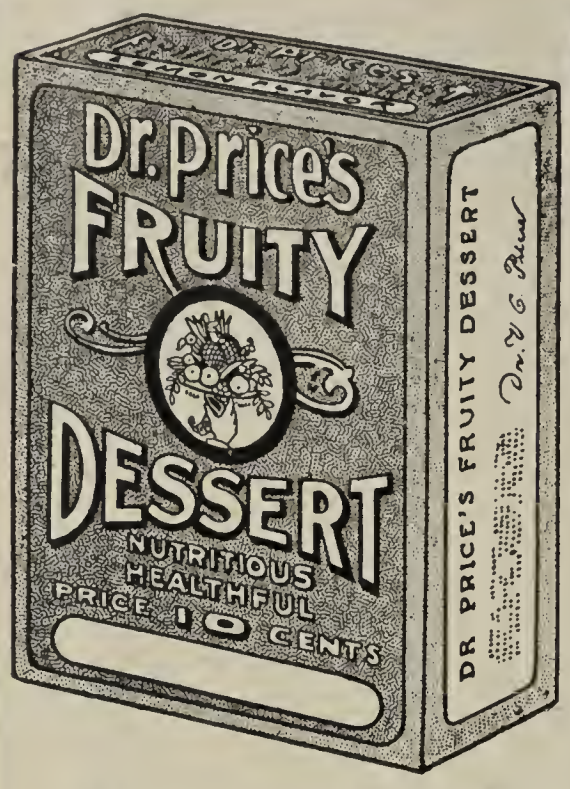
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VOLUME VIII. NOVEMBER, 1913. NUMBER 11.

Important Meeting of Food Experts

WHEN the state food, dairy and drug officials meet in Washington, D. C., on November 14 for a conference with the federal food officials, it is highly probable that they will enter upon their work with a determination to bring about a better degree of harmony than now exists among food officials.

The call for the meeting went out in the form of an invitation from the Secretary of Agriculture, and the main purpose of the gathering, it is understood, is to put into effect t he resolution of the American Association of Food, Dairy and Drug Officials, which was adopted at the meeting in Mobile, Ala., last June. This resolution urged co-operation, and this means a practical scheme of harmony among the various states and the federal authorities.

Complaint has been made that with our great variety of food laws and rulings, co-operation as among the states is impossible, whereas mutual helpfulness might be promoted if a better degree of uniformity as to laws and rulings was observed.

The federal authorities are anxious to work with the various state authorities for the common good, but under existing circumstances this desired condition is next to impossible. We have on the one hand federal laws and rulings defining the rights of manufacturers and distributors regarding food stuff that goes into interstate traffic. Then, on the other hand, we find state laws and rulings in conflict with the federal laws and rulings. The result is friction, which should be avoided.

If the meeting at Washington shall bring about a better degree of harmony with respect to these various laws and rulings, all interested in the pure food problem will be benefited.

Co-operation is a very desirable thing in the food world, but this cannot be brought about until the present inconsistencies are corrected. It will be the aim of the federal pure food experts to encourage the state officials to harmonize, not only as among themselves, but with the federal department. In other words, the department at Washington would like to see all of the food officials of the country working together as near as may be as though the food officials, both state and federal, were all a part of a single entity, working with a single purpose for the betterment of the cause.

While in Washington the food control officials will have an opportunity to attend the meetings of a number of allied associations that will be in session at the time they are in Washington. The Association of Agricultural Colleges and Experiment Stations, the Association of Feed Control Officials and the Association of Official Agricultural Chemists are scheduled to meet about the middle of November, and any of the food control officials who wish to do so may attend these meetings.

The result of the gathering of the food officials at Washington will be awaited with a good deal of interest, for it is confidentially expected that some real good will be accomplished.

It may be noted here that there have been attempts in the past to bring about a much desired degree of co-operation as among state officials. But for several reasons there has been little more done than to make the attempt. The chief difficulty lies in the fact that state laws vary to such an extent that it is impossible to make harmonious work effective. There has been, however, a growing tendency toward bringing the state laws more in harmony. In some instances local necessities make peculiar laws almost imperative. Insofar as these special laws are concerned there is little difficulty. The conflict grows out of similar laws that differ in some of their essential features. If these can be brought into harmony the work of making co-operation practical should not give much trouble. Certain it is that so long as state laws and rulings are widely different, co-operative work will be all but impossible. The intent to work together is a good indication of better co-operation for the future.

BENZOATE OF SODA LAW UPHELD.

ELSEWHERE in this issue will be found the text of the recent decision of the U. S. Circuit Court of Appeals, sitting in Chicago on the right of the state of Indiana, to delegate power to its Board of Health to prohibit the use of benzoate of soda in food products and which decision, written by Judge Kohlsaat, upholds the contention of the Indiana officials.

The decision sustains the constitutionality of the law delegating power to the Board of Health to rule out all preservatives excepting those that are harmless and at the same time it holds that the Board of Health would not be authorized to exclude a harmless preservative. The question being, whether or not benzoate of soda is harmless, is one of fact, and the court held that it "being evident that the question of the harmlessness of benzoate of soda is yet an open question in the scientific world," the legislature had the constitutional right to choose sides in the controversy.

It is understood that the attorneys for the appellants have found grave inconsistencies in the decision which justifies a motion for a rehearing of the case by the circuit court, but considering the importance of the question involved it has been decided to appeal the case to the United States Supreme Court upon a writ of error, and where this long disputed question may be disposed of once and for all.

It has been the judgment of this publication that the use of benzoate of soda in small quantities was harmless. This judgment was predicated upon the exhaustive investigations of some of the ablest chemists in the country. Moreover, it was the opinion of the Remsen board that there was no warrant for prohibiting the use of benzoate of soda as a preservative in small quantities. In fact, so far as our observation and investigations are concerned, we could not see any good reason for prohibiting the use of this preservative.

In view of the willingness of those who depend upon the use of this preservative to take this subject to the highest court in the land for final adjudication, we presume those food commissioners who have not always agreed as to the harmlessness of benzoate of soda will meet the question in the same spirit pending that last decision to which we must all ultimately bow.

The decision, had it been rendered several months ago, would have encouraged some few food commissioners in supporting amendments to their food legislation which would bring their laws within the theories advanced in Judge Kohlsaat's opinion, and thus at variance with the national laws and regulations.

Happily, as we believe, the decision will not have that effect at this time. The spirit of co-operation with the nation in matters of food control is in the air and plans therefore are at this moment being formulated, as will be noted elsewhere in this issue, the idea of unification of our state laws and uniformity with our national law is the popular and modern thought of today, and the decision pending final determination before the supreme court is only useful in emphasizing the importance of this movement rather than as containing lessons of conduct in promoting separate and independent state food legislation.

LET THE CHILDREN LIVE.

THE Illinois Milk Producers' Association and the Cattle Buyers' Association are very much worried for fear that Governor Dunne will put an end to the tuberculin cattle nuisance that has for so long disgraced the state. A delegation representing the dairy interests of the state called on the governor recently and pleaded with him not to issue a proclamation as recommended by the state live stock commission, and the state veterinarian, setting a date after which no cattle for dairy and breeding purposes can be shipped into Illinois without first having undergone a tuberculosis test and having a certificate of good health. The dairymen declared that such a proclamation would materially injure their business.

What the dairymen would say if they told the exact truth is that tubercular cattle are cheaper than those which are healthy. This is so because other states will not tolerate tuberculin cattle, and their owners find a market for them in Illinois. Cattle buyers have prospered by bringing these infected cattle into the state, and the dairymen who buy them at a low price are able to produce milk at a lower cost than they could from healthy cattle. What the dairymen really mean when they talk about the injury Governor Dunne's proclamation would do to their business, is, they can make more money feeding the children of the state on tubercular milk than they could by giving them milk fit to drink.

The butcher who is not above selling tainted meat would have just as good a right to ask Governor Dunne to permit him to sell rotten meat as the dairymen have to ask to be permitted to sell milk that fills the bodies of innocent and helpless children with the germs of consumption.

Hundreds of mothers in the state of Illinois have been carrying their little ones to the graveyard because it would injure the business of a few cattle buyers and greedy dairymen if the state stopped this production of disease infected milk. All over the state the cry has been going up for better milk. Local health departments have been unable to give the people relief because there has been a state rule which permitted the production of milk, unfit for a child to drink.

In recent issues of this publication a great deal of space has been given to the question of improving the milk supply. It was pointed out that a first requisite to milk is healthy cows. This truth will bear repeating now.

Before the large and small cities of the state can hope to get good milk the state authorities must go to the source of the supplyand work a reform. Diseased cows cannot produce good milk. That is elementary.

Governor Dunne is not the kind of man to be moved by the pleading of men who would sacrifice the children of the state for a few dollars. He must know that there are thousands of mothers and other friends of the children ready to make a mighty plea for better milk and while they may not send representatives to him from an organized body, they will nevertheless send up their silent prayers if he will proclaim:

"Kill the diseased cattle; let the children live."

SANITATION AT THE FAIR.

IN the name of the people of the State of Illinois and the visitors from other states in attendance at the recent state fair held at Springfield, we take the liberty of extending congratulations to the state fair management for the exceptional pains taken to preserve a high degree of sanitation on the grounds during the life of the state fair.

The immense throngs that appeared on the fair grounds day after day made the problem of sanitation a very serious one. But it was fairly met and solved to the delight of visitors who realize the danger to health which always lurks in a multitude.

This extra precaution, taken to preserve the health of visitors, is new and serves to show that Illinois is moving forward to meet the demands of a progressive people and the precautions taken proved so successful that we may be assured that a vigorous sanitary board for this great fair is a permanent fixture.

Dr. John Dill Robertson, member of the board of sanitation sent a circular to the managers of all eating places before the fair was really opened, which read: "You are hereby notified that every precaution must be taken by you to keep your food and drink free from contamination by flies. Your garbage receptacles must be kept covered and if not emptied promptly you are expected to report to me at the emergency hospital on the grounds. Flies are the carriers of typhoid fever and other germs. It is easy to infect many people and your cooperation will prevent much of this."

A large placard, worded as follows, was put up in conspicuous places:

"Warning! Look out for the fly! The most dangerous animal on the fair grounds. His feet are covered with disease germs. He wipes them upon your bread, and when you have eaten it the germs are in you. In this manner typhoid fever and other diseases are contracted. Eat or drink nothing unless you know it to be free from infection."

With this warning constantly staring them in the face, the visitors were impressed with the necessity of taking precautions against insanitary food.

Moreover, the notices and warnings sent out were observed. The sanitary board made it a point to see that the rules of the board were not violated.

Heretofore this much desired sanitary condition has not prevailed at the big fairs held throughout the country and the result has been that the doctors had much work to do after these gatherings.

For one thing there are so many little details to look after in the management of a big fair that the matter of better sanitation has been neglected. Its importance, in fact, was not recognized many years ago, but more recently the people have been awakened to the necessity of clean food and clean eating places. And then the miserable little fly has come to be known as one of our great pests, a constant menace to the health of the people. Having acquired some knowledge of the better way of living we are putting this knowledge to good use in many ways. Not the least is protecting great gatherings of men, women and children from danger by observing better sanitary regulations, as was done at the recent Illinois state fair.

Other states, notably Michigan, have done something in the way of protecting the people at their fairs. But it is comparatively a new thing to go to extreme pains in the matter of preserving the health of the people in large gatherings.

CONSERVING GAME AND FISH.

GOVERNOR DUNNE of Illinois has awakened to the fact that the game and fish that might be propagated in the state cuts quite a figure in the food supply problem. Accordingly he has directed his game and fish conservation commission to make an effort to produce more game and fish.

The commission has already done a great deal of work looking to the restocking of our valuable lakes and rivers with the better varieties of edible fish, and have arranged to establish and maintain game reservations in all parts of the state.

Land has become so valuable in the state of Illinois that owners cannot afford to allow the growth of thickets and waste land formerly the haunts of game birds. For that reason chiefly game has steadily been growing scarcer, and the grounds suitable for game has been growing less and less each year.

In those parts of the state where the land is poor and where thickets and woodland abound there is still a fair number of quails. But the land does not produce the number of birds that it might under suitable management by the state. Hence, Governor Dunne and his commissioners are engaged in the business of trying to make "two blades of grass grow where one grew before." That is to say they are applying this rule to the solution of the quail problem.

Reservations are being established by an expert at small cost. On these reservations ample food is provided for the birds and police protection arranged for so that the birds will no doubt multiply rapidly and stock the country adjoining the preserves. With one hundred game reservations in the state the supply of quails will be greatly increased.

Other states have done something in the way of game preservation, but the plan followed by the Illinois game and fish commission differs somewhat from the work being done in other parts of the country. The Illinois plan contemplates the establishment of many reservations at a small cost, rather than a few large preserves at great cost.

ALBUMEN IN BAKING POWER.

WE print in this issue the work and conclusions of Dr. Ladd on the mixing of albumen with baking powder. In our last issue, we printed the work of the state chemist of Idaho, who also found that albumen served no useful purpose in baking powder. It is understood that the results in the government laboratories at Washington, and in the laboratories of other scientists, have been the same. The Federal Government will shortly decide whether baking powder containing albumen may be shipped in interstate commerce, and it is freely predicted that the Federal authorities will decide against its use, and place upon it the ban of the pure food law. If this happens, no one will be seriously hurt, as most manufacturers who formerly used albumen have discontinued its use. There can be no doubt that many unscrupulous persons use the water glass test to deceive merchants and housewives into the belief that albumenized powder has greater comparative leavening strength than it actually possessed. Manufacturers cannot afford to lay themselves open to the charge that they are parties to a fraud upon the consumers, and it will be a good thing all around, both for the industry and the consumer, when albumen is no longer used in baking powder.

Methods in Handling Eggs

Sterile Eggs Less Likely to Spoil Than Fertile Eggs

By J. S. Abbott, Food and Drug Commissioner of Texas

BREAD, meet, milk, butter, water and eggs are the most important articles of food. The Texas Food and Drug Department has therefore given much time to the sanitary and unsanitary methods of handling and the production of these products. If these articles of food did not decay, and if they did not carry disease germs into the human system, there would not be any very great necessity for a pure food law. But they do decay, and they do carry disease germs, if they are not produced and handled properly.

There is absolutely no excuse for a bad egg. It does not even require extra labor nor extra expense to produce an egg that will not spoil in a hot climate like ours. More than that, an egg that will not spoil is a better egg and will bring a better price upon the market than our common market eggs. And still more than that, hens will lay more eggs that will not spoil than they will of the kind that does spoil. Now, then, what is the plan? Simply "swat the rooster." Separate the hens and roosters after you get all of the eggs you want to hatch and keep them separated all the summer. Hens will lay better without roosters, and will lay infertile eggs. Infertile eggs will not spoil, even in our hot climate, if they are kept clean and dry. Bacteria, which abound in filth, will penetrate the egg shell and decompose the egg, if it be kept in a damp, unclean place.

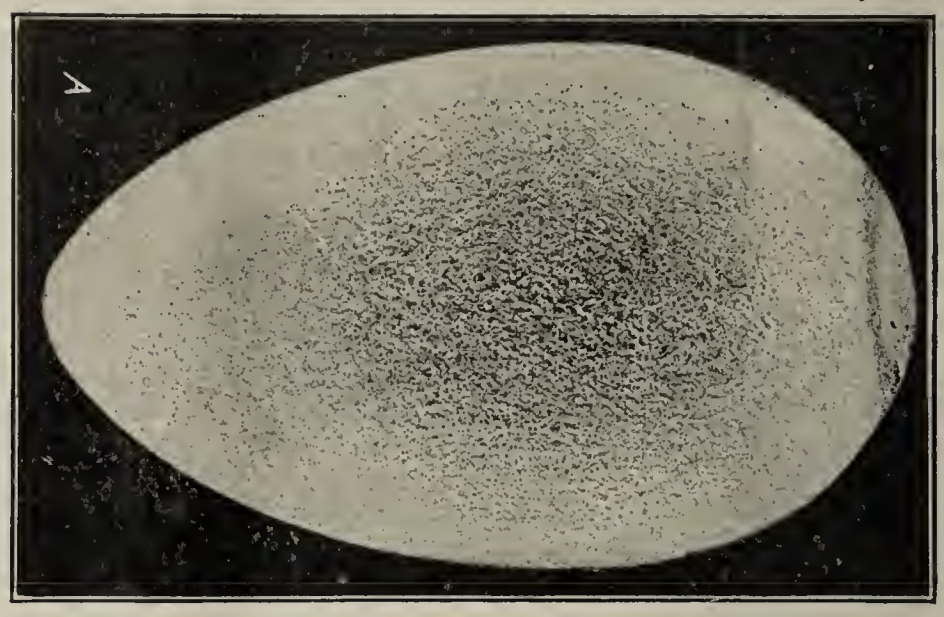


Figure A shows the appearance of a fresh egg as it looks in a candler. It contains a small air space in the large end.

Most eggs sold in Texas are fertile eggs. They contain a chick germ because the roosters are kept with the hens all the year. This chick germ will begin to grow as soon as the summer temperature gets up to about 100° or 103°. Our summer temperature gets this high. And this chick germ will continue to grow as long as the temperature remains this high, provided it can get plenty of oxygen. It breathes from the very beginning of its growth. If it dies from the lack of warmth and oxygen within the first few days of its growth, the egg will be what is called in commercial parlance "a blood ringer" because the young chick germ resembles rings of blood.



An infertile egg, if kept clean and dry, will keep several months in this hot climate. I've talked to one experiment station director who declares he has kept them eighteen months—until they dried up. At any rate, they will keep long enough to travel from the farm to the cold storage room, where they should go if a ready market can not be found for them. A market can be found for good eggs at any and all times of the year. There is a poor market several months of the year for these fertile eggs, and there should not be a market at all for them for edible purposes.

There is no other way to preserve eggs in their natural fresh condition under the Texas Food and Drug Law. However, the physiology used in the Texas public schools for the last five years declares that water glass is the only perfect preservative of eggs. Four little books on agriculture written for use in elementary schools make the same absurd declaration. Now, what is the truth about water glass? It is a silicate of soda. The method of its use is this: It is dissolved in water. This solution is poured into a keg, barrel or other container over the eggs. This prevents bacteria from getting into the eggs through the shells. But it does not prevent the chick germ of a fertile egg from growing at our summer temperature as long as there is any oxygen in the shell. After two or three days' growth, all of the original oxygen in the shell is consumed and the chick smothers and dies. Then the egg contains dead animal matter. It is a spoiled egg. An egg not fit for human food.

Would it not be better to teach our children the simple biological principles of the egg and the correct method of egg production than to teach this water glass absurdity? Would it not be a good idea to have a trained physiologist, a chemist, a biologist and other specialists on our State Text-Book Board, whose duty it is to select text-books for our children?

Figure B shows the appearance of a stale, shrunken egg with a large air space in the large end.

Eggs are commonly preserved in the shell by cold storage. If they are kept in a modern cold storage room at a uniform temperature and at a proper degree of humidity by themselves they may be kept in a fairly fresh and wholesome condition for several months. The bad flavor of cold storage eggs is due to a multiplicity of causes, some of which are known and some of which are not known. At any rate, it is known that eggs in cold storage slowly but gradually and certainly deteriorate and finally become unwholesome. This may happen in from five to ten months, depending upon the efficiency of the cold storage room.

Eggs may be broken and put into cans and frozen hard and kept for a longer period of time than by the ordinary method of storing in the shell at a slight degree above freezing. This method of preservation is practiced upon a much smaller scale than the old method, for such eggs are not in suitable form to be used by the housewife.

Bakeries, hotels and restaurants, however, can and do use these eggs to a limited extent.

Eggs are churned into a homogeneous mass, sprayed upon sacks in a current of hot air and dried into a fine powder. Dry eggs will keep a long time, just like any other dry material. They may also be spread out upon flat boards in a thin layer and dried in a hot room. After they are dry they are scraped off the boards and put into packages suitable for handling. The United States manufacturers thus preserve large quantities of eggs. But still larger quantities are imported, chiefly from China. Under proper supervision, powdered eggs should be readily accepted by the housewife.

In a state like Texas in which there is so much room for spreading out, and in which there are few large cities, most any family may keep enough hens to supply the table with fresh eggs. However, there are many eggs sold to housewives. You should insist upon your grocer furnishing you fresh eggs. If you find bad eggs in the lot that you buy, insist that your grocer replace them with good eggs. If he refuses to do this, file complaint against him with your county attorney in my name, as my special deputy, for selling "decomposed food products," or for having such products in his possession with the intention of selling them. Your grocer need not buy bad eggs. He should candle the eggs which he buys from farmers and throw away the bad eggs upon their first effort to enter commerce. It is his moral duty to thus protect his customers. Then after he has secured good eggs he should keep them good by keeping them in a clean refrigerator. No man has a right to try to handle perishable goods in our climate unless he keeps a refrigerator.

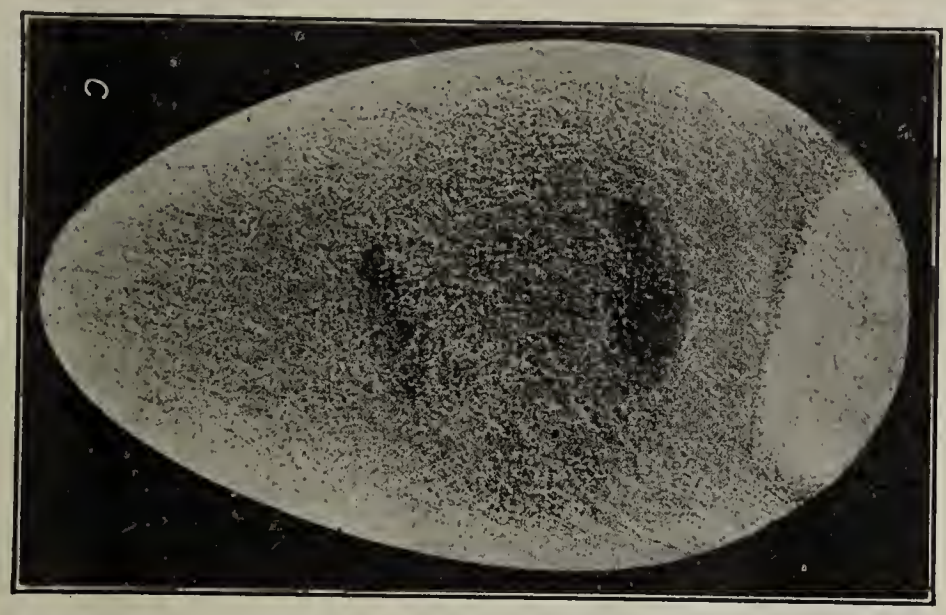


Figure C shows what is known as a "spot" egg. That is an egg that contains a fungous growth.

If you as a consumer will lend the Food and Drug Department a little help in this way it will greatly hasten the coming of better methods of handling food products. If you have troubles which are beyond your powers to overcome, send to us for help, and we shall do all we can under the law to better the conditions in your vicinity. We do not make any charge either for making a sanitary survey of your city with respect to the food and drug situation.



The foregoing remarks apply to eggs as an article of food. We are not concerned about the use of eggs in the tanning of eather. It is so well known that an egg is such a superior article of diet that only a little may be said upon this subject. It does not seem to be very well known, however, that a decayed food product is not food for animal life of any sort. This is primarily the most important principle of dietetics. A decayed food product is a fertilizer—a plant food only, pure and simple. Our foodstuffs must be sound, and they must be clean. If they are not clean, they will decay; if not before they are eaten, they will decay in the digestive tube and produce an objectionable condition of digestion, and maybe disease. Hence, an egg must be sound, undecomposed. And so must all other foodstuffs for that matter.

A hen's egg is made up of the following substances: 73.7 per cent water, 13.4 per cent protein, 10.5 per cent fat, and 1 per cent mineral matter.

The only food element not found in the eggs, therefore, is the carbohydrate. But this is abundant in our vegetable food products in form of sugar, starch and crude fiber. Thus the egg, while it is rich in two essential food elements—protein and fat—is totally deficient in the other important food element, carbohydrate.

Figure D shows a rotten egg. Very little, if any, light passes through; and, therefore, it looks black in the candler.

The digestion of food takes place in the (1) mouth, (2) the stomach, and (3) the intestines. Since only carbohydrates are digested at all in the mouth, the egg is not digested at all in the mouth. Raw eggs are not digested in the stomach, but pass on into the intestines, where they are digested very completely. Soft boiled eggs are digested very completely in the stomach. If hard boiled eggs are thoroughly chopped up, thoroughly chewed, they are digested in the stomach quite as readily as soft boiled eggs. Whether eggs, therefore, are eaten raw or cooked depends upon whether the stomach or the intestines need rest from any cause. This is a matter of little importance to those in good health, but is of great importance to those suffering from indigestion. Your physician will tell you which kind to eat after he finds out where your digestive troubles are.

Candling eggs means to look through the egg in the shell at a candle or other bright lamp or light with all other light excluded from the eye. An egg candler may be bought for two or three dollars. You can make a candler by rolling up a piece of cardboard in a tube shape about 12 inches long and 1½ inches in diameter. Cut one end to fit the eye and the other to fit the egg, but not quite as large as the egg. Shut one eye and look through the tube and egg, placed at the other end of the tube, at a candle, an electric light, or the sun with the other eye. If the candle or electric light is used, the candling should be done in a dark room, or at night. Ask your groceryman to show you a candler and how to candle your eggs. In this way, you can tell whether the egg is fresh, stale and shrunken, or contains "rots" or "spots."

Eggs are everywhere an article of daily diet. In some homes eggs form the substantial part of the morning meal nine tenths of the time. The importance, therefore, of good eggs is at once apparent. Everywhere the people of this country are being awakened to the necessity for better eggs.

TUBERCULOSIS IN STATE CATTLE.

Dr. Kigin, state veterinarian of Nebraska, has completed an inspection and test of dairy cattle at the Hastings asylum for tuberculosis. He found forty-seven tuberculars out of 120 head tested. In order to demonstrate the ravages of tuberculosis he dissected the carcass of one animal, which proved to be affected throughout the entire system. The animals that show signs of the disease will be sold subject to inspection, after they are slaughtered. Where the disease is local the meat is approved for sale as food.

Investigation of Reprocessed Canned Salmon

Possible Danger from Its Use as a Food

A PROBLEM in which very little interest has been manifested, is that of the Reprocessed Canned Salmon Practice. The manufacturers find in canning salmon that on processing and after standing a few days, a number of cans will show indications of spoiling. These cans are then set aside and later punctured or seam opened to allow any collected gas to escape and reprocessed by again heating in the sterilizing ovens. They are then classified by the manufacturers as "do-overs."

The usual practice is to keep the reprocessed cans separate from the regular run and to dispose of the product unlabeled to a certain class of brokers who are in the habit of labeling canned products with the name of any brand which they wish to devise. The names of standard brands are of course never used, and as a rule the name and location of the cannery producing the product does not appear on the label. Such stock is then generally disposed of at prices much below the value of standard brands.

The attention of the State Food Inspector was called to this practice by an advertised sale of canned salmon at prices much below the market value. Upon investigation several shipments were found stored in various warehouses. Samples were taken from the retail shops where the goods were on sale, also from the cases stored in the warehouses, and forwarded to this laboratory for examination. About one hundred samples in all were examined during the months of February and March, 1913. The samples represented in all about 1,800 cases, most of which were these so-called "do-overs." On opening the cans most of the samples were found to be dry and of rather uninviting appearance. The product in a number of cases had a foul odor and could have been passed upon as unfit for food by mere inspection. Externally the cans presented a good appearance and in no instance were they swelled.

Although most of the samples could have been condemned by either appearance, odor, or both, it was thought best to make bacteriological tests in order to gain experience that might be of value in future work on similar products.

METHOD OF ANALYSIS.

Since no method was known for the analysis of canned salmon the standard meat analysis method was employed. The top of the can was sterilized by passing it through a flame, then opened by means of a sterile can opener. One gram of contents was weighed and ground in a sterile mortar, using sterile sand to disintegrate the tissue, and diluted with 9 c.c. of sterile water. From this the following dilutions were made: 1-10, 1-100, 1,1,000. 1,10,000. From each of the above dilutions one cubic centimeter was plated with 1.5% acid agar media and incubated for three days (96 hrs.) at 28° C. Sand and fat were found to interfere somewhat with the bacteria count and in order to lessen this trouble the method was later varied by using 10 grams of sample in 90 c.c. of water, dilutions and one cubic centimeter plates were then made as in above stated method.

Most of the samples analyzed showed bacteria ranging from 400 to 2,000,000 per gram. Three different organisms were found to be present. One organism isolated was identified as Bacillus Vulgatus, another as Bacillus Vulgaris, and a third remains unidentified. Bacillus Vulgatus and Bacillus Vulgaris are facultative anaerobic, spore forming organisms and belong to a class which are very resistant to heat. Both Vulgatus and Bacillus Vulgaris are commonly found in putrefying fluids, contaminated waters, etc., and are bacteria of putrefaction. It is planned to make further investigation of the unidentified organism.

POSSIBLE SOURCES OF CONTAMINATION.

It is known that at some canneries several days may elapse after the fish are caught before they go through the process of canning. Under such conditions the product has a chance to begin to spoil. In washing the fish after removal of heads, fins and entrails polluted water may or may not be used. At one cannery at least it is known that the intake of the water used for washing purposes is near the spot where the refuse is dumped, hence pollution of the water is certain. In any case bacteria of various kinds are present when the fish are placed in the cans. If the processing is properly done the contents are made sterile and the product keeps indefinitely. That many cans do spoil is certain, hence such cans must have failed to become properly sterilized.

The non-sterilized cans soon begin to spoil and when detected furnish the product for reprocessing. In reprocessing many of the cans are undoubtedly sterilized, but that many are not, is certain, otherwise bacteria would not have been found in the product. Reprocessed cans have been opened at this laboratory and found perfectly sterile, the contents of the can, however, showed every evidence to the senses of an advanced stage of decomposition. The only explanation is that in the course of reprocessing the bacteria and moreover the spores were killed, hence rendering the product perfectly sterile.

It is the opinion of the writers that reprocessed meat or fish products should not be allowed on the market. The spoiling of the product immediately following the canning process clearly indicates that sterilization was not complete and that putrefactive organisms were at work in the product. Poisonous albuminous decomposition products may or may not have developed at this stage, but the danger of their having developed certainly exists. The reprocessing of the product may render it sterile, but the second heating cannot remove the danger of the presence of the decomposed matrial. If in reprocessing all organisms are not killed, a fact which is clearly demonstrated by our work, then the danger of poisonous decomposition products becomes greater for the bacteria under favorable conditions of temperature will continue to develop and to cause further decomposition.

It is undoubtedly true that all putrefactive processes do not produce poisonous decomposition products, but the danger of their production can not be overlooked. So far in this work no attempt has been made to isolate or indentify any poisonous principle or to show that such may exist. We are, however, working on this problem and expect to report later on this question.

Laboratory of the State Chemist, University of Washington, College of Pharmacy, Seattle.

WILL MEET IN WASHINGTON.

President James H. Wallis of the American Association of Food, Dairy and Drug Officials has called a meeting of the executive committee to be held at Washington some time during the conference called by Dr. Carl L. Alsberg, chief of the Bureau of Chemistry. The time for holding the next annual convention will be set during this period and most of the program for the Maine meeting will be prepared while the committee is in Washington.

The president has appointed the following committees:

Dr. Chas. Caspari, chairman, of Maryland; Hon. F. H. Fricke, Missouri; Hon. C. H. Billingsley, Ala., to urge the President of United States, Secretary of Agriculture and Congress to amend Paragraph 1, Section 7, National Food and Drug Act, to discontinue tolerance on drugs.

Dr. J. S. Abbott, Texas, member of committee on co-operation, to succeed ex-Commissioner A. H. Jones of Illinois.

Com. Geo. L. Flanders, New York, chairman; Dr. Charles D. Woods, Maine; Dr. E. F. Ladd, North Dakota; Hon. J. W. Helme, Michigan; Dr. Sanford C. Dinsmore, Nevada, to represent national organization in memorializing Congress and President of United States for amendment of Foods and Drugs Act to provide power to make standards for food products.

Commissioner Barney, Iowa; Commissioner Winkjer, Minnesota; Commissioner Barnard, Indiana, to represent the association at National Dairy Show at Chicago.

In view of the fact that many of the commissioners will be in Washington in answer to Dr. Alsberg's call, President Wallis will find the time auspicious to arrange for the 1914 national convention.

A German manufacturer of sausage has made application to the state board of health of California for permission to establish a horse meat factory at Richmond, Cal., across the bay from San Francisco.

National Dairy Show

Allied Interests Hold Annual Meeting

At the National Dairy Show, held during the last week of October at Chicago, unusual interest was manifested in all questions related to the production and delivery of pure milk. President J. C. Steffen of the Inspectors' Association asked for a uniform inspection of milk instead of the one-man idea that now prevails. He declared the little progress that is being made in the control of bovine tuberculosis is due to farmers bringing back the tubercular infected milk from the creameries and feeding it to their calves.

Prof. H. A. Harding, director of the Department of Dairy Husbandry at the University of Illinois, said that the farmer who attempts to carry out all the requirements the health officials are advocating at present for the sanitary production of milk will inevitably land in bankruptcy. He argued that the requirements if strictly adhered to would make the cost of the milk higher than the price the farmer can hope to get.

"His problem is made the more perplexing because he is exposed to the conflicting action of at least four separate sets of requirements, all looking to the improvement of the supply," he said.

"A great deal of stress is being laid upon fine buildings, abundant windows, whitewash and ventilation—in a word, general appearances and expensive construction. The dealer himself is striving scientifically to secure keeping qualities and flavor by selecting the best stock. Many cities are laying stress upon the dairy score card results. Other milk reformers are basing all their conclusions on bacteriological counts The producer has to face this whole battery of requirements and do so without raising his price."

Methods to prevent the spread of bovine tuberculosis were discussed yesterday at the National Dairy Show at the Stock Yards amphitheater by members of the International Association of Dairy and Milk Inspectors, who closed their annual convention.

Statistics showed that of 63 children dying of tuberculosis at the Babies' hospital, 59 cases proved to be human infection and four bovine, a percentage of 6⅓. Of nine children dying of tuberculosis at the Founding hospital, four proved to have derived their infection from human sources and five from bovine, a percentage of 55.

Of a total of 88 children under 5 years of age who died of tuberculosis, 77 proved to have derived their infection from human sources and 11 from bovine, a percentage of 12½. Of 787 cases among adults, 777 were found to be of human and 10 of bovine infection.

During and following the closing days of the dairy show numerous organizations of allied dairy interests held conventions.

These include the National Creamery Buttermakers' Association, at the Hotel Sherman, Oct. 29-31; the International Milk Dealers' Association, Hotel La Salle, Oct. 27-28; the American Association of Creamery Buttermakers at the Stock Yards, Oct. 27; the National Ice Cream Manufacturers' Congress, Congress hotel, Oct. 29-31, and the Illinois Ice Cream Manufacturers' Association, in connection with the national body, and the National Association of Tanners, Oct. 31.

The program arranged by the ice cream manufacturers was quite elaborate. The chief interest centered in those subjects which had to do with the increased cost of production as a result of the higher price of milk and cream and the greater cost of observing the modern food laws.

John B. Newman, assistant food commissioner of Illinois, addressed the convention on sanitation. Mr. Newman urged the manufacturers to make a serious effort to observe the sanitary laws of the state, not only for the sake of observing the law but for commercial reasons. He pointed out the fact that the consuming public today demanded quality in all their food products, and those manufacturers who would make a reputation for putting out high class food products would be certain to receive the patronage of the public.

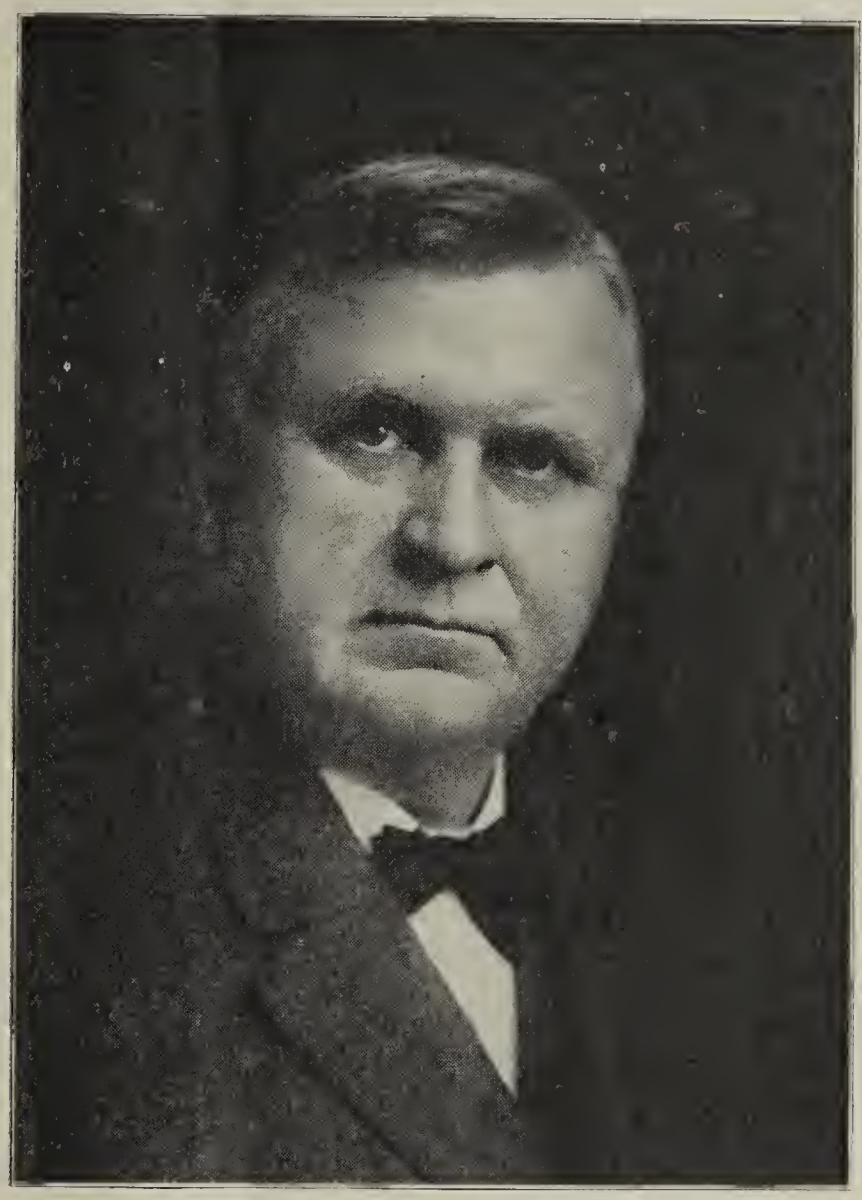
So far as the conduct of the food department was concerned, Mr. Newman assured his hearers that Commissioner Mathews desired the co-operation of the manufacturers of food products in the management of his department to the end, that the people of the state of Illinois would be provided with wholesome food with as little friction as possible between the food department and the manufacturers.

FOOD STANDARD COMMISSION.

The new Illinois food standard commission will be organized during the early part of the month and will take up the work of the board at once.

The appointment of T. P. Sullivan of Chicago to a place on the board is meeting with general favor among manufacturers of food products as well as among wholesale and retail distributers. Mr. Sullivan has spent the best years of his life as a food distributer and naturally has become familiar with all sides of the food problem.

For many years Mr. Sullivan has been identified with organization work in the food field. As president of a Chicago local organization and president of the state organization and as president of the National Retail Grocers' Association it was a part of his duty to promote pure food laws. In this work while national president he was active not alone in his own state, but took a prominent part in promoting pure food laws in other states.



T. P. SULLIVAN.

In his organization work Mr. Sullivan was never known to follow leads, even when they were the work of majorities. He was rather a leader himself, and his knowledge of the food subject and his abundant energy made it possible for him to assume and maintain a leadership in this work.

Mr. Sullivan therefore comes to his work on the food standard commission well equipped as a result of long experience to handle the matters that will come before this body in an intelligent and decisive manner.

Governor Dunne is to be congratulated on the selection of Mr. Sullivan for this important position. Indeed, it may be said that Governor Dunne is fortunate in having been able to secure the services for the state of so valuable a man as Mr. Sullivan.

The Nitrogen Content of Mince Meat

By C. A. A. Utt, Asst. Food Analyst, Kansas State Board of Health, Kansas Agricultural College

THE federal standard for mince meat and that held essentially by a good many of the states is as follows:

"Mince meat is a mixture of not less than ten (10) per cent of cooked, comminuted meat, with chopped suet, apples and other fruit, salt and spices and with sugar, sirup and molasses, with or without vinegar, fresh, concentrated or fermented fruit juices or spirituous liquors."

It is not the purpose of this article to criticise this standard. There will always be a question as to whether manufactured products, containing large varieties of ingredients, can be standardized, satisfactorily, to all concerned.

Mince meat is classed as a dessert, its purpose being for making pies. Atwood has shown (American Food Journal, July, 1912) that there are in existence many hundred recipes for mince meat. Many are made with meat and some without.

There is no question but that mince meat has some food value. It is not eaten, however, for this purpose, but as a delicacy, much as one would eat cake, or any kind of pie.

So long as the word meat clings to it, food officials are inclined to hold that it should contain some meat. The general conclusion, from their standpoint, has been that the 10 per cent meat standard is not too high.

Meat is relatively high in nitrogen compounds (protein). Hence it was thought that the amount of nitrogen found in the mince meat might give a valuable index as to the quantity of meat present.

With this end in view, mincemeat was made containing known quantities of meat and nitrogen determinations were made.

On compiling a large number of recipes it was found that the following ingredients were common: Meat, apples, raisins, currants, citron, suet, sugar, salt, molasses, cider vinegar and spices. Apples predominate with raisins about one-half, and currants about one-quarter as much as the apples. The other ingredients vary with the recipe.

The following, which we will designate as "stock," was made up as representative:

1. Stock—

Apples	1,000 grams	Brown sugar	500 grams
Raisins	500 grams	White sugar	500 grams
Currants	250 grams	Molasses	300 grams
Citron	100 grams	Cider vinegar	250 grams
Suet	200 grams		

One teaspoonful each of cloves, allspice and mace. Pepper and salt to taste.

Concentrated broth from lean meat.

2. A piece of lean meat was boiled until tender and put through a meat-grinder.

Mince meats were made according to the following table:

1. 15% meat, 85% stock.
2. 12½% meat, 87½% stock.
3. 10% meat, 90% stock.
4. 7½% meat, 92½% stock.
5. 5% meat, 95% stock.
6. 2½% meat, 97½% stock.
7. 0 meat, 100% stock.
8. 10% wheat flour, no meat, 90% stock.
9. 5% wheat flour, 5% meat, 90% stock.
10. 10% rye flour, no meat, 90% stock.
11. 5% rye flour, 5% meat, 90% stock.

These samples were put through a meat-grinder until the resulting mass was pulp-like and quite homogeneous in character.

Nitrogen determinations were made on ten-gram samples, using 50 cc. concentrated H_2SO_4 for digestion, and heating two hours after clear.

Table I shows the results obtained on samples of mince meat made in the laboratory.

TABLE I.

No.	Description.	Per cent Nitrogen.	Nitrogen Due To Meat.
1.	15% meat, 85% stock	0.95	0.763
2.	12½% meat, 87½% stock	0.98	0.70
3	10% meat, 90% stock	0.765	0.567
4.	7½% meat, 92½% stock	0.61	0.41
5.	5% meat, 95% stock	0.52	0.311
6	2½% meat, 97½% stock	0.38	0.168
7.	No meat, 100% stock	0.22	

The practice of adding a flour binder to mince meat is quite common. Some manufacturers use white flour; others prefer rye flour. The effect on the nitrogen content of mince meat, when flour is added, is shown in Table II.

According to Leach, lean cooked meat contains about 4.5% nitrogen. On this basis, mince meat containing 10% of added meat would show 0.45% nitrogen due to the meat present. The stock shows 0.22% nitrogen. A mince meat containing 90% of this stock would contain 0.198 grams per 100 grams. Therefore, if 10% meat is present, the nitrogen due to the meat would be 0.765-0.198, or 0.567%.

TABLE II.

No.	Description.	Per cent Nitrogen.
8.	10% wheat flour, 90% stock, no meat	0.345
9.	5% wheat flour, 5% meat, 90% stock	0.625
10.	10% rye flour, 90% stock, no meat	0.295
11.	5% rye flour, 5% meat, 90% stock	0.55

Table III represents the results obtained on samples of wet mince meat purchased on the Kansas markets. Nitrogen was determined; starch identified with iodine and the microscope; meat fiber was identified microscopically. In some samples the suet could be separated mechanically, and was roughly determined that way.

A summary of the table shows the following:

Number of samples, 14.
Number containing 0.2% or less nitrogen, 5.
Number containing 0.2% to 0.3% nitrogen, 3.
Number containing 0.4% to 5% nitrogen, 2.
Number containing over 0.5 per cent nitrogen, 1.

Seven, or 5%, contained no meat. All but one contained less than 5% of meat; 9,782 probably had over 7.5% meat in it. Some starchy binder was found in all the samples.

TABLE III—BULK MINCE MEAT.

No.	Description.	% N.	Starch.	Meat.	Suet.
6696.	Bulk mince meat.	0.11	Present.	No meat.	
6695.	Bulk mince meat.	0.205	Present.	No meat.	
9782.	Bulk mince meat.	0.60	Present.	Present.	
9719.	Bulk mince meat.	0.15	Present.	No meat.	
6725.	Bulk mince meat.	0.22	Present.	No meat.	
70185.	Bulk mince meat.	0.32	Present.	Small amount.	5%
70186.	Bulk mince meat.	0.16	Present.	No meat.	4.5%
70189.	Bulk mince meat.	0.12	Present.	No meat.	4%
6751.	Bulk mince meat.	0.135.	Present.	No meat.	3.5%
6752.	Bulk mince meat.	0.38	Present.	Small amount	3.2%
6755.	Bulk mince meat.	0.41	Present.	Small amount	4.0%
6756.	Bulk mince meat.	0.49	Present.	Present.	5.0%
6757.	Bulk mince meat.	0.40	Present.	Present.	2.0%
6760.	Bulk mince meat.	0.255	Present.	Very small amt.	None

During recent years, largely as a result of the demand for package goods, condensed mince meat has been placed on the market. This comes to the consumer wrapped in paraffined paper, and placed in an attractive carton. It is a compact, convenient form, and can be used the year around.

Condensed mince meat is not made by condensing, but by binding all the solid materials together with wheat or rye flour. Some add small quantities of distilled vinegar and boiled cider, but it is generally supposed that the housewife will supply these flavors.

If made from pure products, condensed mince meat is wholesome and makes appetizing pies. No one is cheated if the ingredients are stated on the label.

TABLE IV.—CONDENSED MINCE MEATS.

No.	Description —Brand.	% of Nitrogen.	N. fig. to added water basis.	Starch.	Meat.	Remarks.
6692.	Bear	0.455	0.151	Present.	Present.	
6693.	Lee	0.375	0.128	Present.	Present.	
6694.	Monogram	0.27	0.09	Present.	None iden.	

9783.	None Such	0.42	0.14	Present.	Present.	
5586.	None Such	0.37	0.12	Present.	Present.	
5588.	Old Home	0.29	0.096	Present.	None iden.	
5589.	Leading Star	0.27	0.09	Present.	None iden.	
70033.	Fox Terrier	0.24	0.08	Present.	None iden.	
10576.	Bear	0.40	0.133	Present.	Present.	
10577.	None Such	0.39	0.13	Present.	Present.	
70183.	Leading Star	0.26	0.086	Present.	None iden.	
70184.	Richelieu	0.30	0.10	Present.	Very sm. amt.	
70203.	Sun Flower	0.40	0.133	Present.	Present.	
90140-1.	None Such	0.44	0.148	Present.	Present.	
90140-2.	None Such	0.49	0.163	Present.	Present.	
90141-1.	Non-tro	0.48	0.16	Present.	Present.	
90141-2.	Non-tro	0.45	0.15	Present.	Present.	
XX-1.	Gilt Edge	0.525	0.176	Present.	Present.	about 7% meat.
XX-2.	Gilt Edge	0.55	0.185	Present.	Present.	about 7% meat.

The contents of the package—about 10 ounces—are added to a quart of water and boiled twenty minutes. This makes two pies.

Table IV shows the results obtained on 19 different samples of condensed mince meat. This represents eleven different brands.

Adding the amount of water specified in the directions on the package cuts the nitrogen content to approximately one-third. The column headed "Nitrogen figured to added water basis" has been computed in this way, and represents the amount of nitrogen in the wet mince meat.

Five samples containing less than 0.30% nitrogen were found on microscopic investigation to contain no meat.

The samples containing about 0.4% nitrogen show from 2.65% to 5% meat. Those showing about 0.5% nitrogen contain a little over 5% meat. None of these samples would pass the 10% meat requirement even on the condensed basis.

From the results of investigation the following standard has been introduced in Kansas:

"Mince meat is a mixture of cooked, comminuted meat, with chopped suet, apples and other fruit, salt and spices, with sugar, syrup or molasses, with or without vinegar, fresh, concentrated, or fermented fruit juices or spirituous liquors. The meat present is in sufficient quantity so that the total nitrogen of the mince meat is not less than 0.50 per cent.

Condensed mince meat, when mixed with liquid as directed on the label, conforms in all respects to this standard except that not more than two (2) per cent of flour may be used as a binder. If glucose be used in any kind of mince meat, its presence must be declared on the label, using type not smaller than eight-point capitals.

As will be noted, the former standard for mince meat, as to cooked meat content, has been somewhat lowered, making this now about 5 per cent, and a standard for condensed mince meat has been added, based on the finished product ready for use."

The author wishes, in closing, to express his appreciation to Dr. J. T. Willard for suggestions in carrying out work embodied in this paper.

CANNING CLUB GIRLS.

Fifteen girls, one from each of fifteen southern states, are soon to be given a trip to Washington as a reward for their splendid work in connection with the girls' canning clubs which are conducted under the auspices of the U. S. Department of Agriculture. These fifteen girls are the state winners in the various contests that have been carried on and are the pick of about 25,000 girls who are enrolled in the canning clubs.

The canning club work was begun three or four years ago by the Bureau of Plant Industry in co-operation with various private agencies. Prizes have been given before but never have the winners been sent in a body to Washington, although the state winners in the boys' corn clubs have been rewarded in this manner. The Department of Agriculture considers that the time is now ripe for the prize girls to have a similar trip and the result is that plans are in progress for the entertainment of the fortunate young women that the states select.

The selection of the winner is made differently in different states. In Georgia, for instance, the prize will be awarded by the Atlanta Chamber of Commerce at the Atlanta Corn Show. In some cases a women's club or an individual or a board of education gives the prize. A great number of public-spirited people are encouraging the growth of the canning club idea as an educational project and the trips will all be paid for through the generosity of private agencies or individuals.

While the Department of Agriculture does not supply the funds for the trips which the young women will make, it has arranged that the women agents of the canning clubs shall be summoned to Washington for an official conference at the same time that the girls are to visit the capital. They will, therefore, be called upon to chaperon the girls from their respective states and will be in charge of them during their visit. The eleventh of December is the date on which this conference is now expected to be called and on which the girls will probably arrive. They will come for a stay of four or five days.

In order to determine which girls are to be chosen, a choice first is made of the best girl in each county, on the basis of notes, reports, and exhibits of the competitors. A state contest is then held in which the winners of the various counties compete. This is frequently held in connection with a state fair.

Each girl of the 25,000 girls enrolled in the canning clubs is supposed to have carried out a definite project in gardening on a tenth-acre plot. The girls have raised tomatoes principally, but frequently they plant string beans, cucumbers, peppers, okra, etc. In certain regions figs are preserved; in others grape juice is made. The raising of the vegetables or fruits is but one feature of the work. When the family has been supplied with fresh products and then the local market, the girls are expected to can the surplus. This is for home use and for the local market. Peaches, berries, and corn are frequently put up as side lines in the canning.

Miss Bessie Starkey, the Virginia girl who had the best record last year of all the states, as far as yield goes, obtained 5,928 pounds of tomatoes in one season from her tenth-acre plot. Many girls have made a profit of over $100 from their one-tenth of an acre in one season. Some of these have even failed to win first prize as there might be more than one in a single state able to attain this result. This year even better results are expected as there are many more girls enrolled and the competition is, therefore, keener.

The good results from the girls' canning clubs have not been restricted to individual records that have been made. Apart from this thousands of homes have had home-grown canned vegetables through the winter months when they would otherwise have been without them. The profits have likewise enabled the girls to help get an education.

A young Mississippi girl has made enough to start in the State normal school and has continued working her way through that institution by growing and canning tomatoes in her vacation. She is now beginning her second year. She has become a recognized canning expert in that community and has been put in charge of a club of girls in the state school who are going into the work of canning tomatoes to help pay their expenses. This is but one case among many of those who have been able to use the income from their canning work to great advantage.

The funds which the Department of Agriculture expends on the girls' canning club work goes strictly for instruction and organization. Even then the department does not supply all the funds but works in co-operation with the various agencies that happen to be interested in the project for their individual districts. Thus the department may co-operate with a college of agriculture, with a State Department of Agriculture, with a board of education, or with a local chamber of commerce. The work was originally first started in the Southern states but so great has been its success that it has been extended to the Northern states as well and similarly satisfactory results are hoped for throughout the country. It is to stimulate a more widespread interest in the proposition that the present project of having the winning girls visit the capital at one time was decided upon. Besides, it was considered that if the corn club boys were given these yearly visits to Washington, something was due to the canning club girls. The organizations are closely allied and work along together in the same districts, often being administered by the same workers. The boys' visits to Washington have aroused much general interest; they have received diplomas from the Secretary of Agriculture, have shaken hands with the president, and have been shown the sights. The girls are expected to receive similar attentions during their stay in the capital.

Although, as a general rule, wheats which contain the largest amount of nitrogen produce the most nitrogenous flours, there are exceptions, due to thick layers of bran, aleurone and large germs.

Tomatoes and Their Products

Experts Disagree on Questions of Vital Importance

SOME objections are raised by A. L. Nehls to the article on Tomatoes and their Products, by Dr. L. J. Tint. His letter is published herewith. Also the rejoinder of Dr. Tint. It may be said at this time that the manufacture of food products is receiving a great deal of attention at the present time and out of a variety of opinions much good is likely to come.

National Canning Laboratory, Aspinwall, Pa.

Editor American Food Journal.—In your October journal on page 426 I see that Dr. L. J. Tint has again broken loose with a lot of nonsense. Dr. Tint filled the pages of the American Food Journal with considerable other nonsense some time ago, but the present article is too much. We would like to point out a few inaccuracies in his article, and desire to have you publish this letter in your next journal, as it is only fair to the canning industry to have the truth printed.

On page 426 the first two paragraphs refer to the canning industry. The last line of the third paragraph states "Preservatives are used to prevent the decay of the already decomposed fruit." We would like to know how a preservative of any kind can prevent the decay of anything that has already decayed.

The second paragraph of the second column on page 426 states, "Everyone (referring to foods eaten in a restaurant) contains more or less preservative." Now there is no use mincing matters about a statement like this—it is false; you know it, and if Dr. Tint knows anything he ought to know it. Besides, no products put up in a canning factory contain preservatives of any kind.

The last paragraph on this page begins, "The use of preservatives should be prohibited." Now, who in the world is Dr. L. J. Tint to make such a statement as this? What does he know about preservatives? As we recollect it, Dr. Tint was for a few months, and a very few months only, bacteriologist for the Illinois State Food Commission. We never heard that he ever did any work on preservatives at all that entitles him to an opinion, and yet he comes out with a bald statement of what should and should not be in direct contradiction to the opinion of some of the best and ablest scientists in the world.



DEVICE FOP PURIFYING CORKS.

The first paragraph on page 427 again is a slander, not only on the canning industry but on chemists in general. Over half of this paragraph is absolutely false.

In the last paragraph in the first column of page 427 Dr. Tint starts to tell about his past experience. To the personal knowledge of the writer last December Dr. Tint didn't know any more about catsup than a rabbit, but now he blossoms forth as an expert and is going to tell everybody how to make catsup. Yet at the same time he says the canning industry "is still in its infancy," and he calls the cyclone machine a "crusher." Of course there is nothing serious in this but we would suggest that he would at least inform himself on some of the simplest things relating to the canning industry before posing as an expert.

In the first paragraph on page 427 he contends that "a few living bacteria are more objectionable than larger quantities of dead bacteria." Why? Surely if he has any objection to bacteria at all he should object to their poisonous by-products, which are present just as much whether the bacteria are dead or alive.

His real ignorance about catsup shows itself in the last paragraph on this page, where he claims that catsup made from partly spoiled tomatoes cannot have the rich color of catsup made from healthy, ripe fruit. Furthermore, he says "sterilization is not effective." We dismiss this whole statement by saying that it is some of the worst nonsense we have ever read, and shows the most appalling ignorance of sterilization problems.

A further instance of Dr. Tint's ignorance of sterilization problems occurs on page 428, the last sentence of the first paragraph. He states that "the spore-bearing bacteria occurring on tomatoes require boiling water temperature for one hour for three consecutive days" in order to kill them. Isn't it wonderful that we ever find any tomato products that keep? Isn't it really wonderful when no tomato product on the market ever gets a process heavier than a boiling water bath for 45 minutes in No. 3 packages? We are unspeakably surprised that all the tomato products that were ever put up before Dr. Tint became interested in the business did not either all blow up or else kill everybody in the country who ate them.

This is about as far as I got in Dr. Tint's article before I got so disgusted that I was compelled to lay the paper aside and start this letter.

Now, there is no objection to anybody writing a muckraking articles if he has at least a few facts to work on, and knows what he is writing about, but when a man like Dr. Tint, who has had no practical experience, except what little he picked up in the last two or three months, begins to write an authoritative article on canning in general and catsup in particular, I refuse to stand for any wild statements like he is making, and he should not be allowed to get away with this kind of stuff, particularly in the American Food Journal, which has always given the manufacturer a squarer deal than a good many of the other so-called food journals.

A. L. Nehls, Chief Chemist.

Dr. Tint's Answer.

I wish to draw attention to some of the statements that are distorted and misquoted. As to the nonsense (to him) of my previous article, I refer those who are interested to the January number of the American Food Journal, which contains my report as part of "The Annual Report of the Illinois Food Commission."

The article was not written to slander any one, nor to cast any reflection upon the canning industry. I wanted to point out certain improvements that gave good results and were a benefit to the manufacturers.

By looking up the original article and my answers to the objections, the people will be able to judge whether I or the gentleman who objected to it, displays ignorance concerning the matter.

There are a number of manufacturers who are only too glad to learn various methods of improving their products. It is not sufficient at the present time, to be only a chemist, and act as an expert for food manufacturers. One must have not only a thorough knowledge of the science of bacteriology, of disease producing bacteria and their poisonous products, but he must also be very familiar with our present methods of agriculture and with the various diseases of our cereals, fruits, vegetables, etc., used as food.

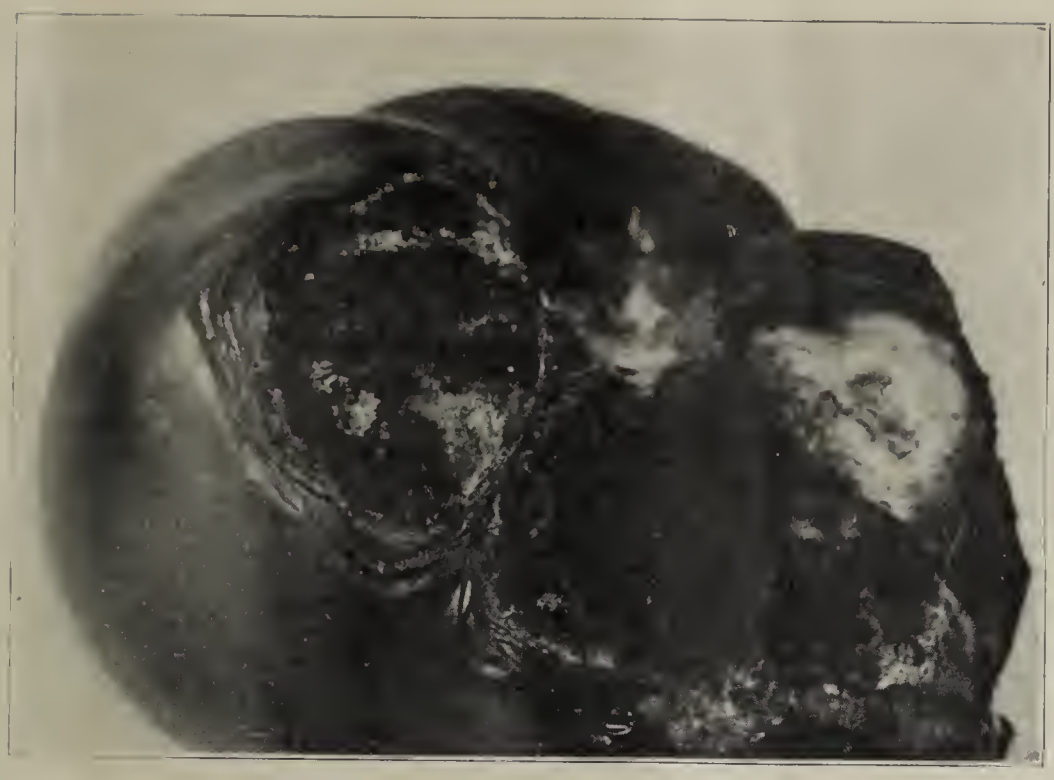
For years the gentleman acted and is still acting, though a chemist, as an expert to ascertain the number of bacteria and molds in the final product when ready to be placed on the market. I saw some reports of the same lot of catsup, and several months after their first examination there was an increase of about forty per cent of bacteria and molds. From what source do these organisms come? The bottles were

corked and sterilized according to their directions.

Just imagine what it means to a manufacturer, to be told that several months after the product is made it would be liable to seizure and condemned by various Food Departments as unfit for food.

In the early part of the Summer I was asked by the manufacturer referred to in my article to take charge of the bacteriologic work, which I did.

The first thing I noticed when I came there, was a thick, slimy mat all along the floor and walls where the tomatoes were assorted. On examination, this mat was entirely composed of spore-bearing bacteria and molds. I immediately asked that the floor and walls should be frequently flushed with boiling water. In a few days the entire place was clean and presented a different appearance. I then examined the catsup and pulp that was sterilized a week before at a boiling temperature for forty-five minutes. To my surprise I found as many living bacteria as if no sterilization was practiced. I then began a series of tests to ascertain the exact temperature in different parts of the can. (See table below.)



THE SOURCE OF MOLDS IN CATSUP.

I took another series of cans and catsup and allowed it to remain for an hour and a half at boiling temperature. On bacteriologic examination, the majority of cans showed no living bacteria, while the remainder showed a small number per cubic centimeter. I looked for the cause. Some of the cans they were using were dirty and rusty. I made them examine the cans with a small searchlight. The rusty cans were discarded. All the cans from that time on were sterilized by live steam. This removed the source of infection as far as the cans were concerned.

STERILIZATION SOON AFTER BOTTLING.

Catsup or pulp, filled in cans or bottles, is boiling hot. It takes several days, sometimes weeks, for cans to cool; especially when they are packed together. I opened some cans that were processed a week previous; the temperature in the center of the pulp was not below forty degrees centigrade. To sterilize cans that were recently filled does not seem to add much to the destruction of spore-bearing bacteria. The object of sterilization is to destroy bacteria or molds which have escaped boiling in the tanks. To test the above, cans with pulp as soon as they were filled and soldered were set aside and allowed to cool. These were sterilized for an hour and a half and again allowed to cool for a week.

Bacteriologic examinations of these cans were made and the result was gratifying. I asked that all cans after they were filled should be set aside for two days to allow them to cool and afterwards resterilize for an hour and a half. By doing this it favored the development of those spore-bearing bacteria that survived the first process and which would be killed by the subsequent sterilization. These cans, therefore, received a double sterilization for a longer period of time without affecting the color or taste of the pulp.

The possible infection of the bottles could come from several causes; imperfect washing of bottles, and from the corks. A series of bottles were taken after they were washed and ready to be filled with catsup. Ten cc. of sterile bouillon were poured in them, corked with sterilized cotton, and placed in the incubator. After twenty-four hours the bouillon was found to be infected. On microscopic examination, spore-bearing bacteria as well as others were present. I asked that special attention should be paid to the cleaning and washing of bottles. Frequently the water is not hot enough and at other times the fine openings become clogged and the bottles are not washed.



STRINGING UP TOMATO VINES.

The corks and other covers were tested as above. All the corks were infected, even though they were paraffined. Provision was made to paraffine the corks at the place. The paraffine was heated in an ordinary wash boiler. Inside the boiler was placed a perforated cylinder filled with corks, which was rotated while in the hot paraffine. After ten minutes, the cylinder was lifted out and the paraffine drained. The corks were tested and found to be sterile; it thus removed a great source of contamination. The corks were then placed in clean

barrels and ready for use. To facilitate the handling of the corks powdered cornstarch was used.

In order to know approximately the number of moulds and bacteria in the open air and the interior of the factory, I exposed for a few minutes Petri dishes containing agar-agar. These were placed in the incubator from twenty-four to forty-eight hours. After that time they were examined. Every Petri dish was covered with colonies of moulds and spore-bearing bacteria, which made it difficult to count. The Petri dishes exposed where the catsup was bottled contained a large number of anaerobic colonies. Five cc. of a twenty-four-hour anerobic bouillon culture inoculated interaperitoneally in a guinea pig, caused the death of the animal the next day. On the post-mortem, general peritonitis with adhesion was present.

Among the bacteria present in large numbers were: bacillus pyocuaneous staphlecoccus, citreus, albus, and aureus. Of the molds, great number of colonies were of macrosporium solani which cause early blight of tomatoes and potatoes.

As a result of this investigation, I asked that steam be allowed to enter the interior of some compartments. This was done in the morning before work was begun. In the afternoon, I again exposed Petri dishes for a few minutes, and placed them in the incubator. It was almost a complete success. Very few colonies of molds and bacteria were present when compared with the previous Petri dishes. After that time the place was steamed each morning.

Some will object to the above as "nonsense" or impracticable. When one tries to improve conditions even rude methods will sometimes help a great deal. One cannot always build special places for different occasions. As a special precaution, covers were made wherever the catsup was exposed, even for a short time, before it was bottled and corked.

When I studied and compared the methods of boiling the catsup or pulp it seemed that there was still chance for improvement. At that place, copper kettles as well as wooden tanks with bottom coils, were used. Charring or burning of the product in the latter was almost a daily occurrence. It s claimed, however, to give excellent results in some places.



TEMPORARY STORAGE FOR PULP CANS.

If steam could enter slowly and gradually raise the temperature of the contents to a boiling point, burning of the catsup on the pipes would be less liable. But the sudden heating of the pipes will always tend to burn the product on the pipes.

The distribution of sugar and spices, etc., as well as the equal distribution of heat, depends on direct steam or steam from coils. This does not seem to be very thorough.

I suggested the introduction of rotating paddles such as are used in some yeast plants. This would favor an equal distribution of the spices and sugar, at the same time it might prevent burning by keeping the contents continually stirred. Arrangements were made to equip some tanks with it.

Tanks where catsup is to be boiled should be covered. The air adjoining and surrounding such a plant is heavily filled with yeast mold and bacteria. Open tanks are therefore more likely to favor contamination.

To facilitate any handling, half covers were made. These, however, could be adjusted on weights and pulleys.

Being satisfied that I did all I could in the short space of time as far as preventive measures were concerned, I then directed again my attention to the tomato fields. By this time the farmer appreciated the importance of not putting half-decayed tomatoes in the shipments.

Some fields had plenty of tomatoes, but they were small, not ripe, and covered with weeds. I tried to convince some farmers of the importance of keeping weeds out of their fields as much as possible in order to give the tomatoes plenty of sunshine all day long and keep the ground dry instead of damp. I took stakes and set them twenty feet apart: these were strung with moderately thick binding twine and the vines were suspended on them. The weeds were removed without difficulty, thus exposing the green tomatoes to the sunshine all day long. In a week, almost all of them were sound and ripe, while in the rest of the field most of the tomatoes were still green and hidden under the weeds. Some may object to the increase of expense and labor. But when they figure that a part of the tomatoes are decayed before they are ripe, while plenty of them remain on the field when frost attacks them, they realize that they save more than the labor required for stakes and twine.

I will now answer the objections to the letter.

(1—2) If the preservatives do not prevent further decay, why are they added to the undesirable products? If the gentleman will look up the report of the Federal as well as of the various State Food Commissions he will find out how many food products contain preservatives.

(3) To refresh his memory, I wish to state that I was connected with the Illinois State Food Department a year and a half. If according to his calculation "a few months" is the same as a year and a half, I have no objections to make.

If he wants to know who Dr. Tint is, I refer him to my past record. I have done bacteriologic work for the last ten years, work in which I am greatly interested. While resident pathologist and interne in the hospital for three years, and as bacteriologist for the State Food Commission for a year and a half, I not only examined bacteria and their products causing diseases in human beings, but. also examined the causative agents of diseased animals as well as of vegetables, used for food. I trust, therefore, that these experiences should entitle me to voice some opinion, particularly when it is based on facts.

The consensus of opinion among medical as well as scientific men, is that preservatives when used in food tend to create a dislike for that food; they add no value as food products; if used for a long period of time they tend to various gastro intestinal disturbances.

A large number of manufacturers have abandoned the use of preservatives. If a food product is put up from the best material, and proper sanitary precautions are taken, there is no need for preservatives. Why use them? However, every individual has the right to use preservatives if he so desires, provided it does not interfere with the health of others. Quote Thornton on Pure Food Drugs, page 231:

"It can be readily seen from this tabulation that the opinions expressed point overwhelmingly to the fact that preservatives as a class are injurious to health, and hence their use is, under the act, inhibited."

(4) Only chemists are capable of imitating the natural color and taste. There are a great number of products that are artificially colored, without specification on the label. Although the government permits the use of a certain number of artificial colors, yet it is only fair that those who buy the food products should be informed whether they are naturally or artificially colored.

(5) I would like to add to the "personal knowledge of the gentleman" that before I was bacteriologist for the Illinois State Food Commission, I was acquainted with agriculture, diseases of vegetables and cereals, particularly of tomatoes, to

an extent beyond his knowledge. A man must be a fool not to be able to apply acquired knowledge to new problems.

Besides, I recall the gentleman's method of examining catsup while in the laboratory. First he would take a drop of catsup, place it on his hand, taste it, then put a drop on the microscope and by looking into it would compute the number of bacteria per cubic centimeter. If scientific methods such as this are not a farce, then what is?

In former times urine was not examined chemically. If suspected of containing sugar, it was tasted, and if sweet, diabetes was the conclusion. The gentleman apparently still follows similar methods.

(7) The seventh paragraph is misquoted. The original reads, "The presence of living bacteria in smaller numbers are more objectionable than larger quantities of dead bacteria. The Government permits the presence of a certain number of bacteria and moulds in a certain quantity of food products. If these bacteria are in excess, the food in question is unwholesome, and adulterated. When, however, the same number of bacteria are alive, they will not only multiply and produce poisonous substances, but will continue to decompose the remaining food products.

(7) If any one wants to know the difference in color of catsup made from partly decayed and that made of sound tomatoes, let him prepare it at home, or ask the various manufacturers. As to sterilization—if the manufacturers of catsup follow his instructions, and sterilize for 45 minutes, they might as well not sterilize at all. It takes about 40 minutes to raise the temperature to 20 degrees in the middle of a can of catsup. It is not surprising, therefore, that thousands of cans of pulp are, at the present time, seized by the Federal Food and Drug Inspectors at Cincinnati and held in violation of the Federal Pure Food Laws. The above cans of catsup were prepared and sterilized according to the gentleman's directions. I refer to the October issue of the AMERICAN FOOD JOURNAL, page 433.

(8) Paragraph eight is again distorted and falsely quoted. It reads, "Spore-bearing bacteria were found in places through which the tomatoes pass while being prepared," and not on the tomatoes as he quotes.

Besides, if he has any knowledge of bacteriology, he knows that spore-bearing bacteria cannot be killed by one sterilization lasting 45 minutes.

If he will look up the weekly records for the past few years of seizures and condemnations of tomato products that are unfit for food, it will keep him busy for quite a while.

FIVE GALLON CANS.

Time in minutes starting with 32° temp.	——Upper Cans.—— Center of Cans.	Side of Cans.	——Lower Cans—— Center of Cans.	Side of Cans.
			Degrees.	
10	32	..	27	..
20	32	..	38	..
30	35	70	40	60
40	40	78	45	75
50	50	90	50	88

ONE GALLON JUGS.

Starting at 22° temperature.		
10	22	..
20	22	..
30	28	60
40	35	84

The above table shows that the temperature inside the cans rises rapidly nearest the tin and very slowly in the center. It requires about fifty minutes to raise the inside temperature about twenty-one degrees. In the one-gallon glass jugs of chili-sauce, the heat penetrates still slower. Dr. L. J. Tint, former Bacteriologist Illinois Food Commission.

The following are the reports which were made a few months later of some samples previously examined which showed an increase in bacteria and molds:

	Molds per field %	Increase %	Yeast %	Increase %	Bacteria %	Increase %
First examination, Sept. 10, 12.....10		...	5	...	7.2	...
Later, Jan. 13.....50		400	5	...	52	622
First, Sept. 18. 12...16		...	8	...	7.2	...
Later, Feb. 13.....28		75	16	100	40	455
First, Sept. 25, 12...10		...	6	...	12	...
Later, March 13....41		310	20	233	60	400
First, Oct. 22, 12....14		...	5	...	14.4	...
Later, March 13....35		150	12	140	51	254

The above is the original of a letter sent me by the manufacturer.

If sterilization for 45 minutes is so perfect, why should there be such an increase of bacteria and molds?

When some improvements are pointed out they are called nonsense and other modest names.

NEW BEET SUGAR LAW.

The last legislature of Michigan passed a law placing the inspection and testing of sugar beets with the Dairy & Food Department. Under the provisions of this law the chemist of the Agricultural College, the chemist of the Dairy & Food Department and the chemist of the Agricultural Experiment Station were made a commission to formulate rules and regulations for the uniform weighing, taring and testing of all sugar beets in Michigan. This commission has already met and formulated rules and regulations providing for the weighing, taring and testing of all sugar beets used in Michigan sugar factories during the coming season. Copies of these rules and regulations have been printed and are required by law to be posted in all beet sugar factories and at all weigh stations.

The dairy and food commissioner is authorized by this law to appoint two inspectors whose duty during the coming season will be to visit various sugar factories and personally see that these regulations are carried out. Both of these inspectors are to be competent beet sugar chemists who have had several years' experience in sugar beet factories.

Under the provisions of this law any farmer who is furnishing sugar beets to any factory, if he is dissatisfied with the weighing and taring of his beets or with the analysis of the sugar content, can file a complaint with the dairy and food commissioner at Lansing and this complaint will be promptly investigated by one of the inspectors and the justice thereof determined.

The Dairy and Food Department also is expected to test all scales used in weighing sugar beets throughout the state, but owing to the non-arrival of weights and scales ordered last June, it will be impossible for the department to test all scales before the opening of the season. It is intended, however, to have the inspector of weights and measures test as many scales as possible, and if any sugar beet grower is dissatisfied with weights received, he should make a complaint to this department and the scales of that particular weigh station will be promptly investigated and corrected if found necessary.

It is hoped by this law to do away with much dissatisfaction that has existed in former years relative to the analysis of the sugar beet content, as this year all factories in Michigan will pay for beets according to the content of sugar.

The law further provides that the salaries and expenses of sugar beet inspectors in enforcing this law shall be paid by the companies, and to provide a fund for this purpose every sugar beet factory at the close of the campaign is required to make a sworn statement of the number of tons of sugar beets sliced and they are also required to pay into the state treasury an annual tax of ¼c per ton on all beets manufactured into sugar, which fund is used to defray the expenses of this inspection. All weighmen, taremen and sugar beet chemists are required to take an oath that they will weigh and test sugar beets according to the rules and regulations prescribed by the State Commission. Copies of these oaths and regulations prescribed will be furnished by the Dairy and Food Department upon application. It is the intention of the department to enforce this law vigorously in order that both the factories and the producers shall have a square deal and that all complaints on either side shall be satisfactorily adjusted.

JAMES W. HELME,
State Dairy and Food Commissioner.

JOHN KLEINHANS' NEW PLACE.

John Kleinhans, who is well known to all the merchants of Kansas through his six years' work as one of the state food inspectors, has taken a position as general salesman for Kansas for the Shawnee Milling Co., of Topeka. Mr. Kleinhans thoroughly understands the business of food selling as well as food manufacture, and was one of the men who assisted in the framing of the pure food laws of the state. He was therefore especially well qualified for the work of pure food officer. He secured many improvements in methods of manufacture, as well as in honesty of labelling, in sanitary conditions, etc. While employed by the state, Mr. Kleinhans was well liked by the merchants because they felt that he was fair, and would not bring prosecutions unless he was forced to do so by exceptional conditions. —Merchants' Journal.

Indiana Benzoate of Soda Law Upheld

United States Circuit Court of Appeals Rules in Favor of the Indiana Law

HEREWITH is published the decision of the United States Court of Appeals in the case of Curtice Brothers Company and Commissioner Barnard, representing the State of Indiana, in the benzoate of soda law:

In the United States Circuit Court of Appeals for the Seventh Circuit.

1991. April session, October Term, 1912.

Curtice Brothers Company, Appellant, vs. Harry E. Barnard et al., Appellees. Appeal from the District Court of the United States for the District of Indiana.

Before Baker, Seaman and Kohlsaat, Circuit Judges.

Appellant and another filed their sworn bill against the Food and Drug Commissioner and the members of the State Board of Health of the State of Indiana, praying that they be restrained from enforcing their determination to prosecute criminally those who sold complainants' goods containing benzoate of soda, and from publishing statements that such sale was illegal, and from criminally prosecuting complainants; from intimidating dealers and from passing any rule forbidding the use of benzoate of soda in catsup or bulk sweet pickles. The bill charges that the use of this article is harmless and very desirable in such manufactures as a preservative; that complainants have large sums invested in such business which will be lost if said proposed enforcement of said rule is carried out with reference to the manufacture of catsup and bulk sweet pickles, and that defendants have notified orators and persons dealing with them that such manufactures do not comply with the Indiana statutes and that any person found selling foods so containing benzoate of soda in Indiana will be criminally prosecuted. The bill further alleges that defendants purport to be acting under chapter 104 of the laws of Indiana for the year 1907, wherein by section 1 the sale of impure and misbranded foods within the meaning of the act is forbidden. By paragraph 7 of section 2 thereof it is provided that "If it (a food) contains any added substance except common table salt, saltpeter, cane sugar, vinegar, spices, * * * or other harmless preservatives whose use is authorized by the state board of health," it shall be deemed adulterated. By section 7 the state board of health is required to adopt such rules fixing the minimum standard as may be necessary to enforce the act, regulating minimum standards for food and drugs and defining specific adulteration. Said section also provides that the violation of such rules shall be punished as set forth in section 10 of the act, by fine for the first two violations and fine and imprisonment for further violations. The bill further charges that the act was never legally published and that said section 2, by exclusion prohibits the use of benzoate of soda in foods. The bill further charges that complainants are advised that said chapter 104 of the laws of 1907, and particularly said enumerated sections, are unconstitutional and void, especially said section 2 thereof, in that (1) It is contrary to the fourteenth amendment to the constitution of the United States; (2) Said chapter, and especially said section 7 thereof, vests legislative power in the state board of health, contrary to the constitution of Indiana; (3) It makes the United States pharmacopoeia and the act of Congress of June 30, 1906, a part thereof by reference, contrary to the Indiana constitution; (4) It attempts to deprive orators of their property without due process of law and due compensation, contrary to the Indiana constitution. The bill further charges that said board has adopted rules which in effect prohibit the use of benzoate of soda, and that the promulgation of said rules is unreasonable and an abuse of power, and that defendants have conspired with their servants and employes to ruin orators' business in Indiana and that by threats of prosecution orators' business in said state will be ruined, unless defendants be restrained. The bill charges that orators make many shipments of such goods into said state, whereby a multitude of harassments will arise, amounting to a confiscation of orators' property right if said rules are enforced. Orators further allege that their manufactures are pure and wholesome and do not violate the constitutional laws of Indiana. The bill thereupon asks for a temporary injunction restraining defendants, their officers and agents, from said acts. Answers were filed denying all conspiracy and all intention to injure orators, denying that benzoate of soda is healthful or necessary, denying the allegations of the bill with regard to confiscation, denying that chapter 104 aforesaid is unconstitutional, admitting their establishment of said rule in accordance with said act. Replication was filed and said cause referred to the master, who filed his report together with the evidence adduced, finding as matter of fact that it is not an accepted fact that in the scientific world benzoate of soda, even in limited quantities, when ingested in the food of human beings, is harmless, and, as matter of law—(1) That such being the case, the State of Indiana has the power to enact a law forbidding its use in any quantity in food products, and (2) That said chapter 104 of the acts of 1907, and each section thereof, is not violative of the constitution of either the State of Indiana or the United States, and recommending that said bill be dismissed at complainants' cost. Numerous exceptions to the report were offered, all of which were overruled by the court. Thereupon the court dismissed said bill for want of equity, from which decree appellant took this appeal. The errors assigned are numerous, but so far as they have been deemed important may be summed up as follows, viz:

1. That the court held that the act of the State of Indiana approved March 4, 1907, being chapter 104 of the acts of 1907, is not, nor is any of its sections, violative of any provision of the constitution of the State of Indiana or of the constitution of the United States or its amendments;

2. That the court did not find that benzoate of soda as used by appellant was harmless beyond a reasonable doubt and so conceded to be in the scientific world;

3. That the court approved the master's report.

Kohlsaat, Circuit Judge, delivered the opinion.

From the evidence and the master's report thereon, it is evident that the question of the harmfulness and harmlessness of benzoate of soda is, as yet, an open one in the scientific world. While the voluminous record of this case deals largely with that question, it is a question of fact. The finding of fact of the master may not in the absence of convincing evidence to the contrary, be set aside. To show that the report is erroneous and not justified by the evidence, the burden rests upon appellant. That burden is not convincingly sustained by the record. We therefore start with the proposition that the question is yet an open one in the scientific world and, therefore, an open one for the purposes of this hearing. This being so, it was within the power of the Indiana legislature to prohibit the use of benzoate of soda in the preparation of foods.

In Laurel Hill Cemetery v. City and County of San Francisco, 216 U. S., p. 358-365, the court was considering an action brought to restrain the appellees from enforcing an ordinance forbidding the burial of the dead within the city and county limits. The complaint set up that the ordinance violated the fourteenth amendment to the constitution of the United States. Speaking through Mr. Justice Holmes, the court says:

"To aid its contention and in support of the averment that its cemetery, although now bordered by many dwellings, is in no way harmful, the plaintiff refers to opinions of scientific men who have maintained that the popular belief is a superstition. Of these we are asked, by implication, to take judicial notice, to adopt them, and on the strength of our acceptance to declare the foundation of the ordinance a mistake and the ordinance void. It may be, in a matter of this kind, where the finding of fact is merely a premise to laying down a rule of law, that this court has power to form its own judgment without the aid of a jury. Prentis v. Atlantic Coast Line, 211 U. S. 210, 227. But whatever the tribunal, in questions of this kind, great caution must be used in overruling the decision of the local authorities, or in allowing it to be overruled. No doubt this court has gone a certain distance in that direction. Dobbins v. Los Angeles, 195 U. S. 222. Lochner v. New York, 198 U. S. 45, 58 et seq. But it has expressed through the mouth of the same judge who delivered the judgment in the case last cited the great reluctance that it feels to interfere with the deliberate decisions of the highest court of the State whose people are directly concerned. Welch v. Swasey, 214 U. S. 91, 106. The reluctance must be redoubled when as here the opinion of that court confirms a specific determination concerning the same spot

previously reached by the body that made the law. See French v. Barber Asphalt Paving Co., 181 U. S. 324, 341; Smith v. Worcester, 182 Massachusetts, 232, 234, 235.

"But the property of deferring a good deal to the tribunals on the spot is not the only ground for caution. If every member of this Bench clearly agreed that burying grounds were centers of safety and thought the Board of Supervisors and the Supreme Court of California wholly wrong, it would not dispose of the case. There are other things to be considered. Opinions still may be divided, and if, on the hypothesis that the danger is real, the ordinance would be valid, we should not overthrow it merely because of our adherence to the other belief. Similar arguments were pressed upon this court with regard to vaccination, but they did not prevail. On the contrary, evidence that vaccination was deleterious was held properly to have been excluded. Jacobson v. Massachusetts, 197 U. S. 11; S. C., 183 Massachusetts, 242. See Otis v. Parker, 187 U. S. 606, 608, 609."

In Red "C" Oil Co. v. North Carolina, 222 U. S. 392, the court had before it a state statute requiring the inspection of kerosene and other illuminating oils and fixing a fee of one half cent per gallon to be paid to the commissioner of agriculture for the purpose of defraying expenses connected with the inspecting, testing and analyzing of the oil. The oil company filed its bill against the state board of agriculture to restrain enforcement of the statute, charging an abuse of the police power. The court quoted approvingly the language of the trial judge where he says, "While there is much diversity of opinion in respect to the danger of explosion from the use of kerosene oil and of the power to ascertain its illuminating capacity, it is evident that the question has not so far passed beyond the domain of debate, that the legislature may not subject it to reasonable inspection before permitting the sale in the state. The court cannot say that such a law has no reasonable relation to the public safety or welfare."

In State v. Layton, 160 Mo. 474, wherein was involved the right of the state to prohibit the use of alum in baking powder, the court says: "What, then, is the test when the constitutionality of an act of the legislature is assailed as invading the right of the citizen to use his faculties in the production of an article for sale for food or drink. We answer that, if it be an article so universally conceded to be wholesome and innocuous that the court may take judicial notice of it, the legislature, under the constitution, has no right to absolutely prohibit it, but if there is a dispute as to the fact of its wholesomeness for food or drink, then the legislature can either regulate or prohibit it." This case was approved in City of St. Louis v. Joseph H. Schuler, 190 Mo. 524.

Manifestly, if the legislature of Indiana in the reasonable exercise of its police power, and for the welfare of its citizens, condemns as an adulteration the use of benzoate of soda in the preparation of articles of food, then, in the absence of a general acceptance of the proposition by the scientific world that such is not the case, there can as to that matter arise no question of the violation of the constitution of the United States, or, as here charged, of the state of Indiana. When deemed necessary by the legislature for the public health, property rights such as here involved must give way. Buttfield v. Stranahan, 192 U. S. 470-493.

There remains yet to be considered appellant's contention that paragraph 7 of section 2 and section 7 of said chapter 104 vest legislative power in the Indiana State Board of Health, because they confer upon said board the power to authorize the use of other harmless preservatives and to adopt rules regulating minimum standards for food and drugs. So far as material here, the language of the statute is as follows, viz.: "That for the purpose of this act an article shall be deemed as adulterated. * * * If it contains any added antiseptic or preservative substance except common table salt, saltpeter, cane sugar, vinegar, spices * * * or other harmless preservatives whose use is authorized by the State Board of Health * * * The State Board of Health shall adopt such rules as may be necessary to enforce this act and shall adopt rules regulating minimum standards for food and drugs, defining specific adulteration and declaring proper methods of collecting and examining drugs and articles of food, and the violation of such rules shall be punished on conviction as set forth in section 10 of this act." It is the contention of appellant that the language of said paragraph 7 of section 2 authorizes the State Board of Health to distinguish as between harmless preservatives, permitting the use of some and prohibiting the use of others arbitrarily. Such, however, is not our construction of that paragraph. Applying the familiar rule of construction which requires that when a statute may have two meanings that one will be adopted which will relieve it from constitutional objection, we are of opinion that the statute confers upon the Board power to ascertain and declare what is a harmless preservative, and that it is not authorized thereby to exclude the use of any preservative which it finds to be harmless. Nor may it arbitrarily denounce that as harmful which is harmless. Appellant's contention that the language of said paragraph 7 of section 2 of said act excludes the use of beet sugar and rock salt is not justified by a fair construction of the language used, since the terms "common table salt" and "cane sugar" are used generally and apply to and include beet sugar and rock salt.

Can it be said that, construed as above, the statute is violative of the constitution because it attempts to confer authority upon the State Board of Health? The question is by no means a new one. In Union Bridge Co. v. United States, 204 U. S. 364-388, it was sought to have the court declare unconstitutional section 18 of the rivers and harbor act of 1899, which authorized the Secretary of War to require bridges over navigable waters to be altered or removed whenever he had reason to believe the same to be an unreasonable obstruction to the free navigation of such waters. The court, through Mr. Justice Harlan, said: "We are of opinion that the act in question is not unconstitutional as conferring upon the Secretary of War powers of such nature that they could not be delegated to him by Congress." In Buttfield v. Stranahan, 192 U. S. 470-496, the court held that the tea inspection act approved March 2, 1897, which authorized the Secretary of the Treasury to appoint a tea inspection board upon whose recommendation he should fix uniform standards for teas imported into the United States, and required that the importation of all teas found to be inferior to such standard should be prohibited, was not repugnant to the constitution. "To deny the power of Congress to delegate such a duty," says the court, "would in effect amount but to declaring that the plenary power vested in Congress to regulate foreign commerce could not be efficaciously exerted."

By an act passed March 8, 1909, the legislature of North Carolina provided for the inspection, under the control of the State Board of Agriculture, of all kerosene or other illuminating oils sold or offered for sale in that state. This act was called in question in Red "C" Oil Mfg. Co. v. Board of Agriculture of North Carolina, supra, as attempting to delegate to the Board of Agriculture the exercise of legislative powers. The court, speaking through Mr. Chief Justice White, held that the claim that legislative powers were delegated was untenable, citing Buttfield v. Stranahan, supra; Union Bridge Co. v. United States, supra; St. Louis, Iron Mountain & S. Ry. Co. v. Taylor, 210 U. S. 281; United States v. Grimaud, 220 U. S. 506.

The Indiana court has, in Blue v. Beach, 155 Ind. 121-123, held that the statute of 1894, which authorized the State Board of Health to adopt rules and by-laws to prevent the spread of contagious and infectious diseases, was constitutional and not an improper delegation of authority, citing a number of cases.

The case of Isenhour v. The State of Indiana, 157 Ind. 517-525, passed upon the food law of 1899, which, so far as the question now under consideration is concerned, is substantially similar to the act herein involved. "The classification of these subjects and the prescribing of rules by which they may be determined is not legislation," says the court, "but merely the exercise of administrative power."

It is therefore apparent that the position taken by appellant with reference to the constitutionality of the act in question is without merit, as are also the other matters covered by the assignment of errors.

The decree of the District Court is

AFFIRMED.

AUSTRALIAN COOKING FAT.

On account of its high price, very little lard is consumed in cooking here, but a preparation commonly called "speisefett," or cooking fat is used. It is sold under the name of "Ceres," and it is said that its principal ingredient is palm oil. This substance, according to Consul C. L. Hoover, is prepared in the towns of Bodenbach and Aussig in the Reichenberg district and sells for 145 crowns per 100 kilos ($13.40 per 100 pounds) in large quantities, or 1.6 crowns per kilo (14¾ cents per pound) in small quantities. It is put up in cakes weighing one-half kilo (1.1 pounds) and is sold without container. In appearance it is much like cottolene. Palm oil, owing to a treaty with Germany, enters Austria under very much more favorable conditions than cottonseed oil, the duty on the former being 2.5 crowns per 100 kilos, while the duty on the latter is 40 crowns.

The Baking Powder Situation

SPECIAL BULLETIN PUBLISHED BY E. F. LADD,
FOOD COMMISSIONER OF NORTH DAKOTA

I BELIEVE that I am justified in saying that at the present time, and during the past few weeks, an attempt has been and is still being made to deceive and mislead the merchants, as well as the consuming public, with regard to the true facts concerning baking powder and the baking powder situation in this state. It is unfortunate when manufacturers resort to questionable methods with regard to the goods of their competitors, whether it be through the claims of the salesmen or through advertisements. It shows a rather distorted and narrow view. It shows a lack of standing upon the broader principle of right and justice. Oftentimes dishonest methods of competitors drive even the honest to copy them in order to counteract in a measure the harmful effects of dishonesty as practiced against them.

In accordance with the provisions of the food statute of the state, this department attempted to lay down certain regulations with regard to baking powders, requiring that all baking powders conform to the same with regard to ingredients, the manner of labeling, advertising, etc. Some of the baking powder representatives in North Dakota are attempting to deceive the merchant into believing that if he has on hand a baking powder containing albumen, which may have been in stock three or four months, when January 1st comes this baking powder must be gotten out of the state or he is liable to prosecution.

Our notice under date of August 9th, furnished information as follows:

"Baking powders in the state of North Dakota October 1, 1913, and not in violation of the previous ruling and regulations need not be withdrawn from the state January 1st, 1914, provided the new stocks of said baking powders coming into the state are in compliance with the regulations recently promulgated."

Such statements made to the merchant by the traveling salesmen in this state are malicious on their part, and the salesmen are not so ignorant but what they know they are doing what is wrong.

Again, a salesman in this state has been attempting, it would seem, to prejudice the people against the ruling of this department, which prohibits the sale of baking powders containing albumen. In the presence of a number of people, among them a representative from the Agricultural College, this salesman stated that every pound can of their baking powder contained seven dozen eggs, meaning, I suppose, the dry egg albumen of seven dozen eggs. He further stated that Ladd was endeavoring to force them to take out this egg albumen and that this would mean that the user of the baking powder would be obliged to purchase seven dozen eggs to take the place of what was contained in one pound of baking powder and which they were giving the people. When asked where they could get eggs so cheap, he replied: "You know at times eggs can be bought very cheap in Germany," from which place the albumen is procured.

Such a statement is absolutely false. If there were seven dozen eggs, or the albumen from seven dozen eggs, in each pound of baking powder even if they paid one cent per dozen for the eggs the albumen would cost more than all the other material contained in the powder, which is less than seven cents. In the next place, 1,000 pounds, or one-half ton, of baking powder contains only from 8 ounces to 16 ounces of egg albumen, or 0.05 of 1 per cent to 1-10 of 1 per cent.

Such methods it would seem are being used to create a sentiment unfavorable to this department and the ruling of this department, perhaps hoping thereby to secure the support of the people to protect them in the continued use of this fraud. Dishonest salesmen, over-enthusiastic or misguided and misinformed men are injuring their own companies by the methods which they have adopted. The method of advertising used by some of these firms is very far from what it might or should be. Take the following statement:

"Would you like your family to eat alum in place of ripe luscious grapes?"

Now, such a statement is only intended to delude the layman and deceive the purchaser of baking powders. Nobody eats alum in baking powder; nobody eats luscious grapes in baking powder as baking powders are not eaten. The bread made with either alum, cream of tartar, or phosphate powder, contains other ingredients than those implied.

The statement that the use of baking powder "economizes butter, flour, eggs; makes the food more appetizing and wholesome" is open to criticism and savours a good deal of the patent medicine style of advertising.

The claim that the use of cream tartar powders leaves Rochelle salts while alum powders leave no unwholesome residue, is a deception and is used for the purpose of fooling the public.

I know of no evidence which would warrant me in concluding that the use of bread made from alum baking powder would justify the following:

"People don't realize that it (alum) is a dangerous drug, the effect of which is to harden the tissues of the stomach and encourage digestive disorders and mal-nutrition. If you knew that you wouldn't buy baking powder with alum in it."

Where is there authority for this kind of an assertion?

A circular contains the following:

"It is a startling fact that efforts are being made in this community to sell baking powders which contain alum and sulphuric acid in large quantities."

Again we find:

"No housekeeper can afford to use alum and sulphuric acid in making food for her family."

These statements are unprincipled attempts to pass off half truths and half lies to deceive the housewife.

Again, no real evidence is furnished in the advertisement to show that food or bread made from cream of tartar powder is 100 per cent digested; or, that made from alum and phosphate powders is only about two-thirds digested.

The going about of demonstrators making the so-called "cold water tests" is a deception and fraud, as I have pointed out in a previous bulletin.

The writer would have it distinctly understood that he is not interested in the baking powder war as to whether one class of baking powder is preferable to another, or not; whether alum and its residual products in the bread, Glaubers salts, aluminum compounds, etc., cream of tartar with its final end products, Rochelle salts or other ingredients; or the phosphate powder and the end products of phosphate, are the least desirable. Both sides are undoubtedly guilty of questionable methods of procedure in the past and of advertising claims that were not justifiable, savoring too strongly of the methods of the quack doctor and questionable patent medicine vendor. Each would do well to clean house, to get on a higher advertising plane, avoid the advertising scandals of the past, and win the fullest possible respect of the public, instead of following a course that will turn the public against them. Later the writer will have something further to say concerning baking powders.

My advice to the dealer, therefore, is to pay precious little attention to the claims made by traveling salesmen with regard to their competitors' goods. If these salesmen are honest they can find enough to do in showing the good qualities of their own product. Don't load up with baking powders previous to January 1st, 1914, so as to have a big stock on hand. This department will not interfere with the sale of legitimate baking powders which you may have on hand after January 1st, if honest methods have been pursued. I might say that all of the well-known baking powders generally sold in the state will probably be found to comply with the requirements of the law. Those whose baking powders contain albumen will undoubtedly either leave it out or their baking powders will be withdrawn from the state; and those whose baking powders contain too much of arsenic or lead will see that the same is properly cut down.

I do not anticipate any great disturbance, certainly no injustice to the honest dealer, except so far as he may be misled by shrewd, unscrupulous or over zealous salesmen. The honest salesman, straightforward and frank, truthful with regard to his own products, leaving those of his competitors absolutely alone, is to be commended for he does a useful and valuable work for the people. But the man who goes about the state misleading or misguiding the merchant or the general public, is a public nuisance and ought to go the way of all such nuisances.

Gentlemen will be honest. Others of the salesmen and their companies may be called upon to defend themselves under the false advertising law.

"Sometime, sometime, we shall understand."

Just at the present time in North Dakota there is being laid a good deal of stress on the fact that the Food Department of Illinois has ruled that the use of albumen in baking powders is permissible. Therefore, why should North Dakota interfere with the sale of baking powder containing albumen when there is nothing objectionable or harmful in albumen as an article of food as declared by the commissioner of Illinois.

Let us examine into the facts with regard to the situation and see what we find. The order permitting of the use of albumen in baking powders was sent out by the Illinois Food Commissioner July 25, 1913, some four days before the former food commissioner retired from his office, and just a few days previous to the public announcement that the former chemist of the Illinois Food Department had allied himself with a baking powder manufacturer who was a user of albumen. In the order of July 25th, sent in the form of a letter to this same baking powder company, former Commissioner Jones says:

"Some six years ago the question of the use of egg albumen in baking powder was under consideration in the Illinois Food Department and the use was permitted."

There is no mention of any later studies bearing on this question, but in looking into the matter I find that in the Annual Report for 1911, Dr. T. J. Bryan, then state chemist for the Food Commission of Illinois, in speaking of the cold water test of baking powders, states:

"The addition of small amounts of albumen to baking powder sometimes misleads in the application of this test as its viscous nature holds the gas bubbles. The resulting foam seems to indicate a larger percentage of carbon dioxide gas than in cases of baking powder of the same strength where albumen is not used. The amount of egg albumen added in baking powders is very minute and practically adds nothing to its food value."

In spite of the fact that the State Chemist of the Commission condemned the use of albumen, nevertheless, Commissioner Jones, just a few days before retiring, issues the order:

"The use of the whites of eggs in the manufacture of baking powder is permitted by the Illinois State Food Commission."

Certainly, we have here contradictory statements that need clearing up; and those who are attempting to misinform the public in this state in these matters, should adhere to the facts.

"Oh, Consistency, thou art a jewel."

In the August bulletin issued by the North Dakota food department the following appears under the caption of "Albumen in Baking Powder":

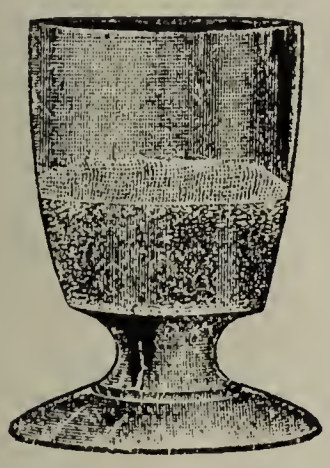
What is the purpose of putting albumen in baking powders? Some baking powders contain albumen in minute quantities; others contain none. Does the presence of albumen serve any useful purpose in baking powder?

The writer has carefully investigated this subject and is convinced that primarily the use of albumen is wrong; that it serves no legitimate purpose in baking powder and never was of material benefit to the consumer, and does not seem to have been originally introduced for the betterment of baking powders. Some manufacturers have been forced to use albumen in baking powder to meet competition; others have used it apparently to give them a talking point and to enable them to make striking demonstrations before dealers, consumers, and at food fairs. The presence of albumen tends to mislead the purchaser in that it offers opportunity for deception and fraud to be practiced on the part of those who desire to do so, and the advertising literature which has flooded the country, clearly indicates this. An advertisement in one of our state papers (and similar advertisements may be found in every part of the country), is headed "Baking Powder Tests" made from photographs taken two minutes after frothing. We reproduce the photograph herewith.

FOOLING THE PUBLIC—A MISLEADING TEST WITH BAKING POWDER.

This is undeniably a fraud in that the advertiser and the demonstrator are aware that the baking powder to which albumen has been added might be the poorest in the lot, and on the other hand it might be the most valuable of the series when tested against those containing no albumen. The test really shows nothing as to the real merits of the two baking powders. In the photograph above, the baking powder that does not show froth and is by the advertiser condemned, may in reality contain the most carbon dioxide uniformly given off and may be the most valuable powder in home baking. For manufacturers to say that such an experiment "proves the wonderful leavening qualities—the purity—economy—the superiority—of ——— baking powder" is most deceptive. It proves nothing of the kind, as some of the advertisers themselves using this method have admitted to the writer. As indicated in the rulings recently sent out by this Department, the use of albumen is to be considered as of doubtful purpose and mainly serves to mislead the housewife through deceptive methods and false advertising. It was false claims of like nature that brought about laws prohibiting all form of advertising on baking powder labels and are now leading legislatures to enact measures to prevent false and misleading advertising of all kinds.

To get the information from the leading manufacturers of the country, the writer sent a series of eight questions to each of those selling goods in North Dakota, and in the majority of cases, even though some of them were using albumen, with the exception of two or three firms all admitted that its use is deceptive; that it serves no legitimate purpose; and in some instances the manufacturers stated that they were forced to use it to meet the competition of competitors; or, as one manufacturer puts it, the use of albumen "is to allow the manufacturers, as we believe, to advertise that the powder 'contains white of egg' and thus claim that fewer eggs are required in baking; also to make the powder produce a full and firm foam when mixed with a little water and to give



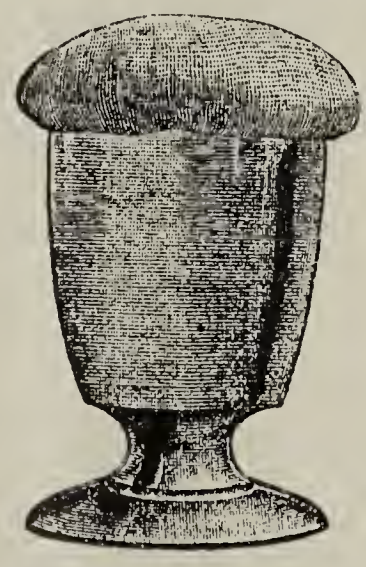
CHEAP OR "BIG CAN" BAKING POWDER.

NOTE the unevenness of the contents; also the small amount of leavening gas from the height the powder has risen in the glass. The residues from these powders vary considerably.



CREAM OF TARTAR POWDER.

YOU will also note the small amount of leavening gas here; also the sediment in the bottom of glass, which is a solution of Rochelle Salts. About 80 per cent of this powder used is left in the food as Rochelle Salts. Ask your doctor about constant dosing with Rochelle Salts.



BAKING POWDER.

NOTE here the amount of leavening gas by the way the powder has risen over the top of the glass. Note how light and fluffy it is; also how even the grain is. This test proves it has a great amount of leavening gas that is gradually and uniformly given off. It leaves no unwholesome residue.

to housekeepers a false appearance of superior strength when compared with pure baking powders."

Or, as another says:

"It was added originally, as we are informed, only to produce foam for use in unfair competition demonstrating. Other manufacturers added it later under compulsion merely to meet this sleight-of-hand competition.

Another says:

"For the purpose of making a test in the presence of the consumer. This test is misleading and completely deceives the customer."

Another says with regard to albumin and non-albumin powders:

"This difference serves as a rather striking illustration of a claimed superiority in baking powder 'for food fair audiences' and the like."

Another says:

"Albumin or white of eggs is added to baking powders to enable those who engage in the manufacture of such powders to deceive those to whom the powders are sold. Deception is practiced in the following manner: Demonstrators are paid to visit merchants, pure food shows and housewives."

One of the manufacturers who uses albumin says that albumin is added to baking powder "for the reason that it has a tendency to retard the escape of the carbonic acid gas in the process of baking and also affords a convenient and quick way to test the condition of our powders on the market."

As to whether albumin increases the leavening power of the baking powder, he says:

"We do not so understand it, except as stated above."

Another manufacturer, largely employing albumin in baking powders, says:

"It serves two purposes of practical value. It aids in an appreciable degree to produce a light biscuit and its presence furnishes an easy method to roughly determine the condition of the powder; that is, whether or not serious deterioration has occurred."

He also claims that the albumin increases the leavening power in the sense that it makes an additional amount of gas available for leavening effect.

The data presented for the two sides does not warrant the conclusion that the chief advantage in the addition of albumin comes from any great additional leavening power, while the claims made by others quoted above are contradictory to these last statements.

It is clearly evident, therefore, that the manufacturers of baking powders themselves generally concede that the advantages which may be gained from the use of albumin in baking powder are slight, while the deception that may be practiced and is practiced misleads and deceives the consumer and the general public, and the prohibition of the use of albumin works no hardship but places a premium on honesty.

The following rulings were therefore promulgated by the Food Commissioner:

BAKING POWDER RULINGS.

July 23, 1913.

By virtue of the statute which provides that this department may adopt or fix standards of purity, quality or strength, when such standards are not fixed by statute, and, farther, in that baking powders shall be labeled in a form to be prescribed by this department, the following rulings and regulations are made, which supersede all previous existing regulations with regard to baking powders:

1. All baking powders shall show the name and address of the manufacturer. This does not preclude the name of the jobber from appearing on the container.

2. The label must not contain any advertising or descriptive matter, other than directions for use.

3. There must be shown the true net weight.

4. Baking powders containing more than one part per million of arsenic are illegal.

5. Baking powders shall contain less than five parts per million of lead to be passed.

6. To be standard, baking powders shall contain not less than 12 per cent of available carbon dioxide, and, when the amount falls below 10 per cent, the product shall be deemed in violation of the statute.

7. The presence of added albumin, egg albumin, etc., in baking powders is prohibited, and the sale of baking powders containing albumin shall constitute an offense under the Food Laws of North Dakota.

8. Baking powders shall not contain other harmful or deleterious ingredients.

9. Misleading or deceptive newspaper or other form of advertising is prohibited by statute.

10. Baking powders containing, as an essential constituent, aluminum compounds shall be labeled as "ALUM." Or, containing acid phosphates, shall be labeled "CALCIUM ACID PHOSPHATE," or such other product as is used in the place thereof, thus: "This baking powder contains the following ingredients and none other: Sodium bicarbonate, calcium acid phospate, alum and starch."

11. On and after October 1, 1913, all baking powders coming into the state, or produced in the state of North Dakota, shall conform with the foregoing regulations, but no prosecutions for products now in the state shall be made prior to January 1, 1914.

(Signed) E. F. Ladd, Commissioner.

BAKING POWDER RULING.

To the Trade:—Taking advantage of our recent ruling against the use of egg albumen in baking powder, competitors have industriously used it to intimidate dealers against making any further purchases of such goods. We have received so many letters from Idaho retailers asking us as to the safest course to pursue, that we feel in justice to them that we should make some statement.

Since our ruling was promulgated, the Federal authorities at Washington, D. C., have commenced an investigation into the question of egg albumen in baking powders, and will, we understand, shortly give a decision in the matter. Whatever conclusions they come to will be accepted by Idaho as final, because, under our Food and Drug Act, we are compelled to accept these rulings. If the Federal officials should hold with us against the use of egg albumen, they will also give a reasonable time in which dealers must get rid of baking powders containing this product. Undoubtedly this period will be much longer than January 1, 1914, the time set in our recent ruling.

If egg albumen were a harmful and deleterious ingredient, then, of course, immediate action would be taken against it by food officials. This, however, has not been held by us. We have ruled against its use solely on two grounds: First, that the albumen is placed in the powder for the purpose of affording an opportunity of deceiving the consuming public into believing that it is a superior article to what it is, the deceptive means being what is generally known as the "water glass test." Second, that the amount of albumen is so minute that it can have no appreciable effect on the quality of the finished product, nor does it in any manner increase the efficiency of the leavening agent. These questions will be settled as a result of the investigations now being made by the Federal authorities at Washington.

Therefore, The trade is advised that no action whatever will be taken against any baking powder containing egg albumen until a decision has been made by the United States Bureau of Chemistry, and that the sale of all goods then in the hands of Idaho dealers will be permitted.

James H. Wallis,
Dairy, Food and Sanitary Inspector for Idaho.

Editor American Food Journal.—We beg to acknowledge with thanks receipt of your October copy, and to state that we read with much pleasure the article bearing on the use of egg albumen in baking powder. We, in the thirty years of manufacturing baking powder, have tested and tried out every new and supposedly ingredient that would add to the strength and efficiency of our product, but so far without finding anything that would be an improvement on a straight powder composed of bicarb soda, acid and starch, when properly re-dried and combined with chemical accuracy. Our notion has always been that the use of egg albumen had no intrinsic value as an ingredient of baking powder. The results of the experiments, as reported, convince us that we were correct. We believe in using the very best ingredients that science can produce, re-dry and combine properly, pack in well-made tin cans. When this is done it will keep for a number of years, when not exposed to moisture.

JAMES H. PARRISH, Riosa Baking Powder Co.

MEETINGS TO BE HELD.

The following meetings of importance to the food world will be held in Chicago this month: American Beet Sugar Industry, Congress Hotel, November 17-18; De Laval Separator Co., Hotel Sherman, November 17-21; Western Carriers' Association, Hotel Sherman, November 20; United States Land Show, Coliseum, November 20-December 8; International Live Stock Exhibition, International Amphitheater, November 29-December 6.

Washington Corrspondence

(From our Staff Correspondent.)

WASHINGTON, Nov. 26.—There are going to be several things of more than ordinary interest to the food and drugs trade taking place in Washington during the next three months. For perfectly obvious reasons not much noise will be made about them. Secretary Houston's staff has not yet developed any member, who, in his own estimation is wiser than the head of the department and better equipped as a chemist and as a lawyer to dispose of matters of mixed law and fact.

The wine men, Californians on one side and Ohio and Missourians on the other, will appear before the secretary on Nov. 5, the Californians asking for the complete abandonment of F. I. D. No. 120 under the terms of which the Ohio and Missouri wine men are allowed to add sugar and water to their must, the former to increase the alcoholic content and the latter to reduce the acidity of the crushed grapes.

As every sane man knows, a majority of the questions in the food and drug trades to which the test of the food and drugs act is applied, is primarily a dispute between manufacturers as to which recipe should be used in making a given article of food or medicine. The public has been misled into believing that there is a question of health or morals or a mixed question of health and morals involved.

Whether this dispute as to which is the proper way to make wine is going to spread out to the proportions assumed by the query as to what is whiskey, cannot be answered now. The chances, however, are that there will be no such development. The reason for saying that is this: Secretary Houston, having the experience of his predecessor before him ought to be able to detect any move on the part of any member of his staff to commercialize the dispute. That is he should be able to tell whether any one of his men is helping one faction to gain a commercial advantage. He will not need to inquire whether the help is being given in return for a profit to the giver or whether it is being accorded simply through damphoolishness. It is not necessary to say that the new head of the department will make short work of such a situation should it arise. He knows that the surest ground for criticism levelled at Secretary Wilson is that he did not ask for enough resignations.

The Ohio and Missouri wine men brought the campaign of the Californians upon themselves. They induced Senator Pomerene to offer an amendment to the tariff law requiring the internal revenue tax of $1.10 a gallon to be paid on all spirits, whether wine or neutral, used in fortifying sweet wine. The Californians, since 1890 have had the privilege of using wine spirits produced by themselves, in quantity sufficient to fortify their sweet wines, port, sherry and so forth. The absolute essential to such free use is that the wine spirits (nothing more than new brandy) shall be the production of a distillery located at the vineyard where the wine is produced. Californians are the only ones who can conform to the condition precedent. Ohio and Missouri grapes are not made into brandy. They are not suitable. Therefore the Ohioans must buy spirits required to keep their sweet wine from turning into vinegar. They generally use neutral spirits, which worries those who assert that the only way to make wine is to use the juice of ripe grapes without adding anything thereto or taking therefrom.

Right at that point arrives the dispute as to which is the proper recipe to be used in making wine. If the dispute is made hot enough, there will be wise men to bring forward records proving that pre-historic man made wine in a goat skin or a gourd, from which it follows that that is the only way to make it now.

In the name of progress, or progressiveism, the loud talkers insist upon going back to "first principles," stopping, of course, at a point which would happen to put the dollars into the pocket of some particular interest, as would have been the case had the definition of what is whiskey been allowed to become official.

Any one who understands anything about railroad rates and the density of population can see at a glance that the whole thing is a fight for markets between the Californians and the Ohioans and Missourians. If the Californians are forced to pay the tax on the alcohol they use in preserving their sweet wines, they will be at a disadvantage. To reach the markets of largest consumption they will have to pay higher freight rates than the Ohioans and Missourians. The question really ought to be remitted to the Interstate Commerce Commission to determine whether the wine rates paid by the Californians are just and reasonable and not unduly discriminatory in favor of the Ohioans and the Missourians. Nobody seriously contends that it makes any difference to a man's stomach whether the alcohol he is drinking was made from grapes alone or from grapes and something else.

On Nov. 14 and 15 Secretary Houston and his helpers in the enforcement of the food and drugs act will have a conference with state law enforcement men with a view to bringing about a better co-operation between the states and the national government. This will be the most ambitious conference on that subject that has ever been held. Most of the other conferences have been the informal ones during the national conventions. This conference is likely to be of benefit because the severity with which Secretary Houston frowns upon the discussions twixt tweedle-dee and tweedle-dum is a guarantee of their beneficial character. There are practical troubles enough in the administration of practical statutes to keep everybody busy. Too much time has already been wasted on profitless discussions as to which recipe should be used and whether a trade name that everybody understands should be put into the Index Prohibitum because some official knows that the application of the chemical name would result in commercial damage.

The Coca Cola case comes up in the circuit court of appeals early this month and the bleached flour case in the supreme court in January. The last mentioned was set for argument on the first day of the October term of the court, but owing to the change of administration the government was not ready to proceed. Attorney General McReynolds himself, will argue the case. In the flour case, the government must satisfy the court that as a proposition of law, the presence of a poisonous substance in an article of food is sufficient to make it fall under the law without proof that the quantity is sufficient to be harmful, in the ordinary use of the article in which found.

The government has won its first case under the Sherley amendment to the food and drugs act. Judge Willard at St. Paul applied it to a seizure of medicine called a microbe-killer and therefore put out as a cure for consumption and about everything else caused by germs but with which the doctors have not had much success in their battles. The case was exactly like the Johnson case which caused the supreme court to point out that while congress may have intended to make unlawful false and misleading claims as to the curative properties of medicines, as a matter of fact it had not done so. The Sherley amendment shuts out the nostrums which Solicitor McCabe thought Dr. Wiley should try to suppress instead of using up his time trying to force his view as to what constitutes whiskey upon Secretary Wilson. The expectation is that the producers and vendors of medicines for which wild and fanciful claims are made will carry that case to the supreme court in an endeavor to have that tribunal find a flaw in it that will have the same effect as that produced by the conclusion of the court that congress had not actually drawn a statute by the terms of which the medicine-faker would be driven from his remunerative business of robbing the poor and ignorant sick.

Startling conditions among the dairy herds of the State of Ohio which the authorities are powerless to remedy because of lack of legislation, were described by State Senator Louis P. Cook in an address to the Antituberculosis League. He declared that the state authorities have knowledge that there are at least 100,000 cows in Ohio dairies that are afflicted with tuberculosis and that the milk from these consumptive cows are fed to babies, as well as used for the family breakfast.

The Name-on-the-Label bill, which passed the lower house of the California legislature, was amended and failed of passage in the senate, and therefore the California law with regard to the name on the label at present remains unchanged.

Pennsylvania Correspondence

(From Our Staff Correspondent.)

Harrisburg, Pa., Oct. 26.—The commonwealth won the first round of the suit to test the vinegar law, but the cold storage battle is yet to come. The vinegar case was brought to trial a few days ago after several postponements, but the cold storage action remains to be disposed of, having been three times postponed. The vinegar action was to determine if water could be legally added to the product of pure apple juice. The crux of the case was that the manufacturers contended that the pure vinegar as it came from the factory was unsalable and unpalatable and that the addition of a slight amount of water to a pure product was not a violation. The commonwealth, which prosecuted the case through the attorney-general's department acting for the dairy and food commissioner, stood for a strict construction of the law, asserting that there should be a test because if the door was opened makers of vinegars which have no apples in their ancestry except some apple jelly, would take advantage of it to the injury of the public and interference with makers of legitimate vinegar. The test suit was brought against C. W. Burtnett, of the Evans-Burtnett Company, of Harrisburg, who was defended by W. W. Armstrong, of Rochester, N. Y., and tried before Judge S. J. M. McCarrell, of the Dauphin County Court, who was for years counsel for the dairy and food commissioner in this district and who is well versed in food laws. After a day spent in arguing whether the act of 1901 should be construed to the letter, the court directed a verdict of guilty. Leave was given to the attorneys for the defense to file reasons for a new trial, which will probably be refused and the case will be appealed to the Superior Court.

The first quarterly reports to be made by managers of cold storage warehouses of products in storage under the cold storage act of 1913, made as of October 1, 1913, have been summarized by Dairy and Food Commissioner James Foust showing that food products stored run into millions of dollars of value. The eggs reported in storage are not given in the summary according to months, but it is unofficially stated that the time limit of eight months on many of them will expire in December and January. The figures show the following with the time limits:

Eggs in shell, 10,664,861 dozen; out of shell, 239,821 pounds—8 months.

Butter, 10,445,790 pounds—9 months.

Fish, 3,341,487 pounds—9 months.

Poultry, 743,772 pounds, dressed and drawn—5 months; dressed and undrawn—10 months.

Game, 17,477 pounds.

Beef, carcasses, 33,325 pounds; parts, 376,136 pounds—4 months.

Veal, carcasses, 11,222 pounds; parts, 11,343 pounds—3 months.

Sheep, carcasses, 142,596 pounds; parts, 30,285 pounds—6 months.

Hogs, carcasses, 1,275 pounds; parts, 576,217 pounds—6 months.

Parts of carcasses not classified, 45,655 pounds.

The figures given out do not show the distribution of the foods held in storage, but the bulk is in Philadelphia. Efforts have been made in that city to secure from the commissioner some order which would permit the holding of some of the eggs for a longer period because of the demoralization of prices which would follow the throwing of a large quantity on the market at once or in one month, but the commissioner under advice from the attorney-general's department has shown that the act gives him no discretion.

Suits by the score for violation of the cold storage law requirement that all products withdrawn from cold storage warehouses and placed on sale at retail must be placarded have been brought in the cities of Philadelphia, Pittsburgh, Scranton, Erie and other places of smaller population, the refusal or neglect of retail merchants being the only instance of violation of the act. There are seventy-seven cold storage warehouses now operating under state license, only those storing for more than thirty days being required to take out a license, and not one has been prosecuted, all having complied with legal requirements. The fault appears to lie solely with the retailers.

Applications for oleomargarine licenses for the three months of October, November and December broke all records for short term licenses, states Commissioner Foust. This is due to the operation of the new oleo law which fixes a standard. The demand for oleo is stated to be heavy and yet there is no complaint made about the butter business.

The state highway department will on and after November 1 receive applications for licensing of automobiles for 1914, which will be under a new act in which motor trucks, drays and vans are separately classed. There are special licenses for such machines, the maximum of weight being 26,000 pounds. Heretofore such vehicles, of which there are hundreds in the grocery trade in Pennsylvania, have been under the general automobile license act. There will be five special tags for such vehicles, stars being on the plates to denote the weight. Every operator must have a chauffeur's license.

The agents of the dairy and food division have been cooperating with the Philadelphia city health officers in ridding that city of a number of undesirable food shops. Wholesale inspections have revealed that merchants of small facilities in foreign quarters have been selling meats wholly unfit for food. Efforts are being made to trace sources of supply in order to check the sales which are injurious to legitimate trade in those quarters and whose representatives have aided the officials.

Enforcement of the pure vinegar act has led to over fifty suits in twenty-one counties during October and some remarkable concoctions under the name of vinegar have turned up. In some instances it was found that distillery waste has been used in the making of vinegar and in others that pure chemical mixtures were sold with a little jelly or something to take away the curse.

The new female employment law, about which much was heard in the legislative session last summer, goes into effect on November 1 and the canning industry is exempted under certain provisions. Fifty-four hours is the maximum allowed for employment of women and girls, ten hours being the daily limit. The act says: "Provided, that aforesaid restrictions as to hours shall not apply to females engaged in the canning of fruit and vegetable products.

The following is an official statement regarding the conference on arranging a standard of tolerance held at the Capitol on October 6:

Under the Commodities Act passed by the Legislature of 1913, the Chief of the Bureau of Standards is directed to fix a tolerance governing the sale of commodities. The problem of arranging a tolerance has occupied the minds of some of the prominent packers and shippers of the country for the past twelve months. In conjunction with the federal authorities they have been making a scientific investigation of the various commodities that are sold in packages, with a view of fixing tolerances that would be uniform throughout the various states of the Union.

The work of arranging tolerances under the different climatic conditions is of such complex character that the conference which convened in the senate caucus room at the State Capitol, after a thorough discussion of the subject, decided to adjourn for a period of thirty days for the purpose of giving the members of the conference an opportunity of securing more information which would enable them to more intelligently arrange a practical and satisfactory tolerance that would meet with the approval of the Bureau as well as that of the merchants so that in the future the consumers would be protected from the practice of some dealers in selling packages that do not contain the amount for which they have paid.

The following representatives of the state and national merchants association, together with the chief and sealers, were present at the conference:

The 30,000,000 pounds of butter in Chicago warehouses is being tested by a staff of federal revenue agents. It is said to be one of the biggest single enterprises of inspection ever undertaken by the government. In the whole country it is officially estimated there is not more than 57,000,000 pounds of butter in storage, which means that Chicago is preserving more than half. The purpose of the investigation is to learn to what extent federal laws against adulteration are being violated.

Indiana Correspondence

(By a Staff Correspondent.)

INDIANAPOLIS, Ind., October 26.—Among the one or two paramount issues of the present municipal campaign in Indianapolis is the effort of James L. Keach, a commission man of extensive holdings here, to gain control of the city market, according to followers of three of the four leading parties in the field here. Joseph E. Bell is the Democratic candidate for mayor and Mr. Keach has been working night and day for his election. Enemies of Bell, including Republicans, Progressives and followers of the Citizens' ticket, have charged throughout the campaign that Keach's hand in the Bell campaign is being played solely because Bell has given him an ironclad promise that, if elected, Bell will immediately name Mr. Keach as market master. The ironclad promise to Keach has been definitely made. Whether this is Keach's chief incentive for working for Bell, as is charged, is not definitely known. Mr. Keach has built up a commission business of his own here that now ranks with the larger firms of the city.

Another angle to the political situation here, which deals directly with the food problem in Indianapolis, is the charge being made by the three other parties that Mr. Keach, if Bell is successful, intends to find a way immediately to depose Isadore Wulfson, the picturesque weights and measures inspector of Indianapolis. Wulfson was appointed under Republican administration and now holds office under an Indiana law "during good behavior." Keach and Wulfson never have been friends, it is pointed out. Wulfson says he will fight to the bitter end to keep his office from being forced into politics. He believes that, under the Indiana statute, any political scalp hunters who start in quest of his place will have their hands full. The developments of the political enigma here from a market standpoint are being watched eagerly by all food-handling establishments and the Indianapolis housewife.

In a statement, which will appear in next month's bulletin from the State Food and Drug Department, Harry E. Barnard, who figured so prominently in the famous benzoate of soda cases, just decided in the United States Circuit Court of appeals at Chicago, says the upholding of the decision of the lower court leaves the Indiana Board of Health with hands untied for the enforcement of the pure food laws in the state. The statement follows:

"The right to bar the sale of food products in which benzoate of soda has been used as a preservative is upheld and declared an open question in the scientific world, according to an opinion handed down at Chicago early in October by the United States Circuit Court of Appeals of the Seventh Circuit.

"In delivering this opinion on this question, which has agitated manufacturers during the past year, the court affirmed a decision of the United States Circuit Court of Indianapolis, refusing to issue an injunction restraining the Indiana Food and Drug Commissioner and the Indiana State Board of Health from interfering with the sale of catsup and pickles containing benzoate of soda.

"The decision is of far-reaching effect in that it gives the Indiana state officials a free hand in prohibiting the sale of food products containing the preservative. The opinion was handed down in the case of the Curtice Bros. Company against Harry E. Barnard and other members of the State Board of Health.

"The appellant company, large manufacturers of preserved foods, took the case into the federal courts and tried to get an injunction against the state officials restraining them from interfering with the sale of their catsup and sweet pickles. The court refused to grant the injunction and the case was appealed."

Eggs are shooting skyward in price here and commission men say that they are to reach the highest prices they have known this winter. Mr. Barnard, in a published interview, said that the present winter will see practically all sorts of foodstuffs reaching higher prices than ever before. He advised the Indiana housewife to plan her meals this winter with a liberal supply of rice therein, as he said that grain is about the only one that will not join the upward tendency of foodstuffs.

Augustus M. Buchanan, for eight years a dairy inspector in Indianapolis, has resigned to the City Board of Health in Indianapolis. He will take up work with a big milk company here. Dr. J. McLean Moulder, superintendent of the Methodist hospital here, in a statement published here recently, said the hospitals of the country are beginning to suffer from the high price of foodstuffs and the general high cost of living to an extent heretofore unprecedented.

J. C. Johnston, recently appointed food analyst of the Department of Food Inspection in Illinois, has just finished a trip of inspection through Indiana, in company with food officials of the State Board of Health. He also studied the Indiana pure food law while here. He inspected catsup factories, meat markets, slaughter houses, grocery stores and similar places in many parts of the state.

A letter received by Governor Samuel M. Ralston of Indiana threatened to blow up all the cold storage houses in Indianapolis unless "they stop robbing the people". The letter was a typical "Black Hand warning".

Twenty-one of the cases against market stand holders in the meat section of the Indianapolis market have been dropped by the city authorities because state food inspectors failed to obtain enough legal evidence to convict the persons arrested for failure to protect their wares. The cases had been held up for many weeks. They were some of a total of more than 300 cases filed here last summer.

Eighty-three samples of food were analyzed by the State Food Commissioner during the month of September, of which 55 were legal and 28 illegal. Two of the 22 milk samples were illegal because they contained visible dirt and were below standard. Eleven of the 21 samples of soda analyzed were classed as illegal because they were not properly labeled or contained benzoate of soda or saccharin. Twenty vinegars were analyzed and 11 classed as legal and 9 illegal. The illegal vinegars were so classed because they were low in acidity. In some cases this was due to incomplete fermentation.

During the month the inspectors of the State Board visited 41 cities and towns and reported 934 sanitary inspections. Of this number 18 places were in excellent condition, 522 good, 347 fair, 41 poor and 6 bad. One hundred and sixty-two of the 248 grocery stores visited were in good condition, 75 fair, 5 poor, 1 bad and 5 excellent. Three of the fifteen dairies inspected were found in good condition, 10 were fair, 1 poor and 1 bad. Ninety-five meat markets were inspected. Of this number 2 were rated excellent, 62 good, 30 fair and 1 poor. Of the 78 drug stores visited 5 were found in excellent condition, 63 good and 10 fair. Three of the 142 bakeries and confectioneries visited were rated excellent, 99 good, 37 fair and 3 poor. One hundred and forty hotels and restaurants were inspected. Of this number 2 were found in excellent condition, 59 good, 68 fair, 9 poor and 2 bad. One hundred and twenty-eight canning factories were visited. One was rated excellent, 42 good, 67 fair, 16 poor and 2 bad. Four of the 14 ice cream parlors visited were rated good and 10 fair. Seven of the 8 poultry houses inspected were rated fair and 1 poor. The three wholesale grocery stores visited were found to be in good condition. Three of the 5 slaughter houses inspected were found good, 1 fair and 1 poor. Inspections were also made to creameries, bottling works, milk depots, fruit stores, ice and cold storage plants and saloons.

During the month three prosecutions were brought for violation of the pure food and sanitary food law. Two cases were brought for selling misbranded beverages. A dealer was fined for selling ice cream below standard. The total fines and costs levied during the month amounted to $57.35.

Twenty-seven condemnation notices were issued during the month because of unsanitary conditions and 7 alleging, as well, improper construction.

LIVE STOCK EXPOSITION.

The annual International Live Stock Exhibition will be held at the Union Stock Yards, Chicago, November 29-December 6. This annual exhibition of live stock has done a great service in educating the farmer up to the necessity of improving his live stock. It has taught him how to breed and appreciate the types of animals best suited to his purpose. The scrubs have gone out of existence in the western country, very largely through the influence of this great annual exposition of live stock.

Recent Laws and Rulings

UNITED STATES DEPARTMENT OF AGRICULTURE.
Office of the Secretary.

FOOD INSPECTION DECISION NO. 151.

APPLICATION OF REGULATIONS.

Regulation 39 of the Rules and Regulations made in pursuance of the authority conferred by section 3 of the Food and Drugs Act, June 30, 1906 (34 Stat., 768), which reads as follows:

"REGULATION 39. APPLICATION OF REGULATIONS.

"These regulations shall not apply to domestic meat and meat food products which are prepared, transported, or sold in interstate or foreign commerce under the meat-inspection law and the regulations of the Secretary of Agriculture made thereunder" is hereby revoked.

W. G. McAdoo,
Secretary of the Treasury.
D. F. Houston,
Secretary of Agriculture.
William C. Redfield,
Secretary of Commerce.

Washington, D. C., June 16, 1913.

(Federal Court.) The use of a geographical name in connection with a food or drug product will not be deemed misbranding, when by reason of long usage it has come to indicate a style, type or brand, but in such cases the location where such product is manufactured or produced shall be stated upon the principal label. Therefore coffee shipped from Arabia, whether produced in Arabia or Abyssinia, may be properly labeled "Mocha," but the label must state in which of the two countries it was produced.—United States v. Thompson & Taylor Spice Co., 198 Fed. 565.

(Federal Court.) The production and sale in interstate commerce of a domestic wine, charged artificially, and contained in bottles labeled "Extra Dry Champagne" and such label containing other words in the French language and calculated to deceive a purchaser into believing that he is buying an imported French wine, is a misbranding and the manufacturer is guilty of a violation of the Federal Pure Food Laws. —Schraubstadter v. United States, 199 Fed. 568.

(Federal Court.) Manufacturing and placing in packages a combination of black and ground long pepper and shipping the same in interstate commerce, labeled "Pure Pepper", is a misbranding of the article when the trade custom has been to use the words "Pure Pepper" only to designate black pepper. Therefore the combination is subject to forfeiture as evading the Food and Drug Laws.—United States v. Seventy-Five Boxes Pepper, 198 Fed. 934.

(Federal Court.) It is the duty of the Secretary of Agriculture, after discovering and investigating an alleged violation of the Food and Drug Laws, to at once certify the fact to the United States District Attorney in whose district the prosecution for the offense charged should be had.—United States v. J. L. Hopkins Co., 199 Fed. 649.

(Federal Court.) One who is the originator and manufacturer of a certain beverage contained in bottles of a distinctive shape and label can restrain another from producing and distributing to dealers a similar article contained in bottles and labeled to resemble the original beverage, the dealer in turn palming the article off on the unsuspecting public as the original, though another name is used to describe the similar article and different labels are used. Such methods of imitation are looked upon in the law as unfair competition.—Moxie Company v. Daoust, 206 Fed. 434.

(Federal Court.) A controversy between the manufacturers of two articles which concededly may properly be designated by the same name, as to which is the "original and only genuine" article of that name, does not involve any property rights which may be determined by a court of equity and protected by injunction. The Borden Condensed Milk Company and the Horlick Malted Milk Company each manufacture a product rightfully called "malted milk". The latter company, however, advertise their product as the "only original and only genuine".—Borden's Condensed Milk Co. v. Horlick's Malted Milk Co., 206 Fed. 949.

(Kansas.) A long established and prosperous flour milling comporation doing business under the name of the "Kansas Milling Company" may enjoin a new company from using the name "Kansas Flour Mills Company", the latter being so similar as to mislead reasonably intelligent customers into believing that they are purchasing the product of the original company. Geographical names are not generally subject of exclusive appropriation as trade-marks or trade names, but such words may sometimes in connection with other words acquire a secondary signification, indicative not only of the location of the manufacturer, but the name of the product, or its character, so that the name or title thus employed, including the geographical word, may be the subject of protection against unfair competition.—Kansas Milling Co. v. Kansas Flour Mills Company, 133 P. 542.

(New York.) One who sells condensed milk containing a mixture of pure milk and skimmed milk in violation of the Food and Drug Laws forbidding the sale of such milk cannot recover the price of the sale. A contract prohibited by statute is unenforceable.—Genesee Valley Milk Products Company v. J. H. Jones Corporation, 69 Misc. 236.

(Oregon.) A state law which merely makes it unlawful to cut from tub butter any roll or square or print of butter, and offer it for sale, except it be sold in wrappers marked "tub butter", is proper, as a preventative of unfair competition, and an imposition on customers. But where the law provides that those engaged in the creamery business in Oregon may make tub butter into prints, providing the process is completed within twenty days from the time the butter was manufactured, it is unconstitutional as a law which grants to any citizen or class of citizens privileges or immunities which, on the same terms, are denied to all citizens.—State v. Goodhue, 126 P. 986.

(Pennsylvania.) The word "food" is a general term, and applies to all that is eaten for the nourishment of the body, and includes anything which is eaten or drunk for nourishment, any substance that is taken into the body which serves, through organic action, to build up normal structure or supply the waste tissue. Thus confectionery is classified as food.—Commonwealth v. Plflaum 84 A. 842.

HEARING FOR WINE MAKERS.

The Secretary of Agriculture following application for a modification or suspension of Food Inspection Decision No. 120, which relates to the labeling of Ohio and Missouri wines, has announced that he will hold a public hearing in the Department of Agriculture on November 5, 1913, at 10 o'clock. Wine makers and grape growers of all parts of the United States and all other interested parties are invited to appear and present such arguments and such testimony as they may see fit either for or against Food Inspection Decision No. 120, or for or against Food Inspection No. 109, which also affects the labeling of wines. Those unable to attend in person may submit written statements which should reach the department on or before the date of the meeting.

Food Inspection Decision No. 109 states, "The Board is of the opinion that the term 'wine' without modification is an appropriate name solely for the product made from the normal alcoholic fermentation of the juice of sound ripe grapes, without addition or abstraction, either prior or subsequent to fermentation, except as such may occur in the usual cellar treatment for clarifying and aging. The addition of water or sugar, or both, to the must prior to fermentation is considered improper, and a product so treated should not be called 'wine' without further characterizing it. A fermented beverage prepared from grape must by addition of sugar would properly be called a 'sugar wine,' or the product may be labeled in such a fashion as to clearly indicate that it is not made from the untreated grape must, but with the addition of sugar."

* * * "In the opinion of the Board no beverage can be made from the marc of grapes which is entitled to be called 'wine' however further characterized, unless it be by the word 'imitation.'"

Food Inspection Decision No. 120, headed "Labeling of Ohio and Missouri Wines," deals with the question whether a sugar solution may be added to the grape must before fermentation in the states of Ohio and Missouri and the product still be labeled "wine." This decision allows the addition of a sugar solution to grape must under certain conditions and permits the product to be known as "Ohio Wine," or "Mis-

souri Wine," or as "Ohio Sweet Wine," or "Missouri Sweet Wine." The decision permits a product made in Ohio or Missouri by the addition of water and sugar to the pomace of grapes from which the juice has been partially expressed, and by fermenting the mixture until a fermented beverage is produced, to be labeled "Ohio Pomace Wine" or "Missouri Pomace Wine." If a sugar solution is added to these products for the purposes of sweetening after fermentation, the decision requires them to be characterized as "Sweet Pomace Wines." The addition of any artificial coloring matter or sweetening or preservative other than sugar must be declared plainly on the label.

HELPING TO CAN GOOD EGGS.

The Food Research Laboratory of the Bureau of Chemistry is conducting experiments in a number of egg breaking establishments in order to assist the manufacturers in canning perfect eggs for winter use. According to the specialists of the department, there is no reason why eggs cannot be broken, canned and kept as an excellent food just the same as other products are canned and kept for use when the fresh supply is low.

As in all canning, however, the specialists have made clear that it is essential that nothing but perfect eggs be canned and that they be canned under such conditions of cleanliness and kept in such low temperatures that they have no chance to spoil.

Under the new system of canning, the eggs are canned in rooms and with utensils that rival in cleanliness the appointments of the hospital operating room. Everything is sterilized and those who actually break the eggs have to clean their hands much as a surgeon does before operating. Each egg before being broken is candled and nothing but perfect eggs come into the breaking room. Each egg is broken separately into a cup. If, by any chance, the eggs is other than first-class, it is not dumped into the can but is removed from the breaking room and before the breaker can resume work, she must clean her hands and sterilize all the instruments she has used. The actual breaking is done with eggs at a low temperature and in a room where the air is cold enough to prevent any change in the nature of the egg. The cans of eggs are then sealed and frozen and kept frozen until they go to the baker at the time of egg shortage. Through these means the specialists are confident that good eggs can be canned at the time when eggs are plentiful and thus provide an ample supply of reasonable priced eggs for bakers when eggs mount up in price. Eggs canned under these conditions are in no sense to be confused with the carelessly canned or doctored eggs put out by unscrupulous egg breakers and used by unscrupulous bakers as a cheapener for their cakes and other products.

WATER IN CANNED TOMATOES.

There seems to be a general misunderstanding in certain localities regarding what constitutes adulteration of canned tomatoes, and for this reason many may find interesting and enlightening a repetition of the Department of Agriculture's Food Inspection decision on this subject.

The can in any canned food product serves not only as a container but also as an index of the quantity of food contained. It should be as full of food as is practicable without injuring the quality or appearance of the contents.

Tomatoes are a food product which may be canned without the addition of any other substance, therefore, the addition of water is deemed adulteration. Pulp has been discovered prepared from trimmings, cores, and other waste material, which was added to canned tomatoes. This pulp is not a normal ingredient of canned tomatoes and is, therefore, adulteration.

Also, if in the canning of a lot of tomatoes, more juice is added than normally would be present, the same is considered an adulteration in the opinion of the Board of Food and Drug Inspection.

A number of decisions have been handed down in favor of the United States in suits brought against companies that have shipped in interstate commerce canned tomatoes adulterated with pulp or an excessive amount of juice. To prevent any unwitting violation of the law by others, who may be ignorant of what adulteration of canned tomatoes is considered to mean, these particulars are once more called to the public's attention.

HEARING ON LABELING.

In response to a number of requests for a hearing on the subject of the proper labeling of cocoa and chocolate by persons who object to the definition of cocoa laid down in Food Inspection Decision 136, the Board of Food and Drug Inspection will grant a public hearing on this subject in the Bureau of Chemistry at 10 a. m., Friday, November 7. Those who are not able to attend may mail their views in writing to reach the board not later than the time set for the hearing.

The chief question at issue is whether cocoa to which sugar has been added can properly be labeled "sweet powdered chocolate." Food Inspection Decision 136 and also Circular No. 19 of "Standards of Purity for Food Products" define chocolate as being the solid or plastic mass obtained by grinding cocoa nibs without the removal of fat or other constituents except the germ. Cocoa and powdered cocoa are terms applied to cocoa nibs deprived of a portion of its fat and finely pulverized. The question at issue is whether the powdered products, containing less cocoa fat than chocolate, may be labeled "Chocolate."

OBJECTS TO VINEGAR RULING.

A correspondent writing to the Washington pure food authorities says:

Noting your circular letter of Oct. 15th, in reference to the sale of vinegar in the State of Washington, we are particularly interested in the paragraph pertaining to cider vinegar. You state that you intend to demand that the acetic acid shall be from 4½ to 6 grams, and we call your attention to the fact that this is a much higher percentage than required by the National Government, and in fact, higher than called for in any report that we have from other states. The National Government requires 4 grams, and it has been our experience that 4 grams is sufficiently strong for Cider Vinegar for ordinary table use. In our opinion most of the trouble that has been caused by adulteration has been that the vinegar has been too strong for the consumer in its original state and complaint has been made to the retailer, and the retailer in turn in trying to make a longer profit by reducing the vinegar without any particular formula, has oftentimes turned out vinegar lacking in strength as well as solids and ash.

Most of the pure Cider Vinegar manufactured here will run about 4 2/10 grams acetic acid. The manufacturers will, of course, have to conform to your ruling of 4½ grams, but we believe if you will give the matter more serious consideration you will conclude that pure Cider Vinegar sold in your State, running over 4 grams acetic acid, will answer.

VINEGAR RULING FURTHER DEFINED.

Your letter of the 16th to Commissioner Perkins in reference to the sale of vinegar in the state of Washington, has been turned over to me for reply.

I believe a careful reading of my letter to the trade will disclose to you the fact that we have not established a percentage standard of vinegar. We are perfectly aware of past requirements for vinegar as we are also aware that those requirements led to the wholesale violations of the Pure Food Law as pertaining to vinegar.

The law, State and National, plainly states that an article shall be deemed adulterated "If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength."

It is impossible to dilute vinegar with water without affecting its quality and strength. You can readily see how farcical it would be to tolerate present practices with vinegar. Your admissions in reference to reductions is only one of many brought to our knowledge. It is a grave question with this department if the practice is not universal. No manufacturers, wholesalers or retailers are in possession of any formula whereby they can dilute vinegar from its natural strength so as to disguise the fact from the public and the chemists. Whenever we officially sanction or tolerate the adulteration of an article our troubles will begin.

It is just as illegal for the dealer to water vinegar as it is to water milk. The only safe and honorable course left open to us is to follow the law governing food along the lines the National and State legislature framed. Our ruling is in absolute harmony with the law and just to the consumers and reputable manufacturers and dealers.

Hoping we have made our position clear and that you will see that we are trying to give everybody a square deal, we remain,

Yours truly,

J. J. HIGGINS,

Ass't Comm'r Foods, Feeds, etc.

Survey of the Food World

FINED $1,650 AND COSTS.

Two notices of judgment just issued by the U. S. Department of Agriculture state that Melville Liebenthal and Sylvester Liebenthal, doing business under the name of Liebenthal Bros. & Co., of Cleveland, Ohio, have had fines imposed on them by the court, which total to the amount of $1,650. This firm pleaded *nolo contendere* to the charge of the unlawful shipment of the following beverages:

(1) Creme De Violette—This product was shipped into Pennsylvania and bore this front label: "Lenora Exquisite Creme de Violette Compound Artificially colored Lenora Exquisite." As it was colored with methyl violet, an added deleterious ingredient that might render it injurious to health, adulteration was charged. As the label conveyed the impression that the article was a French product, when it was really of domestic manufacture, misbranding was charged.

(2) Quinine-Whisky—This product was shipped into Michigan and the bottles each bore a cut depicting a waitress or nurse bearing a bottle upon a tray. It was labeled: "Day & Night Quinine-Whisky, a compound Invigorating Strengthing Mellow Beneficial. The Taste Lingers. Liebenthal Bros. & Co., Cleveland, Ohio. In producing our Quinine-Whisky the object of the Producers was to have something that would be acknowledged by the Connoisseurs superior to any other similar article yet placed upon the market. Unusual precaution was therefore taken in the secret formula owned by us with the result that our Quinine-Whisky is now regarded as the finest made by all dealers. In addition our Quinine-Whisky possesses such excellent qualities that it is used by Adults as well as Children, and it has attained such a grand reputation that no home should be without it. In order to guard the public against the numerous and injurious imitations of our Day & Night Quinine-Whisky, we caution all persons to satisfy themselves before purchasing of its genuineness. Guaranteed under the National Pure Food Law, U. S. Serial No. 2521."

A similar label was printed in German.

Misbranding of the product was alleged because the "Quinine-Whisky contained no quinine, but did contain 50.3 per cent of alcohol and this fact was not declared on the label."

(3) Banana Flavor Cordial—This product was shipped into Minnesota. It was labeled "Banana Flavor Cordial," and bore a foreign coat of arms. Adulteration and misbranding were charged as it was an imitation banana flavor cordial sold as a genuine banana flavor.

(4) Cherry Brandy—This product was shipped into Illinois. Its label bore the name "Ruska Nalivka Kiebckar," which was adjudged false and misleading as the brandy was an imitation cherry cordial and was of domestic origin and did not come from Russia. The product was adulterated because an imitation cherry cordial flavored with benzaldehyde and colored with a coal-tar dye, had been mixed and packed with it, so as to reduce, lower and injuriously affect its quality and strength.

(5) Vodka—This product was shipped into Massachusetts. It was labeled: "Vodka Russian Style Brandy," but did not come from Russia and it had been mixed with an imitation Vodka so as to injuriously affects its quality.

(6) Cherry Brandy—This, as in No. 4, was labeled "Ruska Nalivka Kiebckar." It was shipped into Massachusetts.

(7) Tigero Slivowitz or Wodka—This product was shipped into Massachusetts. Among other thinks the label stated: "A Compound—Hungarian style—Staropolska—Wodka—Smocazna-l-Przyjemma Do Picia—Old Country Style—Pleasant and wholesome to drink," which would lead the purchaser to believe that it was a product of Poland, whereas it was made in the United States.

(8) Blackberry Cordial shipped into Massachusetts—The label stated that "This delicious Blackberry Cordial is a compound which contains the very best ingredients obtainable"; analysis showed it to be an imitation blackberry cordial artificially colored with a coal-tar dye, and containing 0.069 per cent of benzoate of soda.

(9) Apricot Cordial—This product was shipped into Missouri. It purported by its label to be a genuine apricot cordial, whereas it was an imitation apricot flavored cordial.

(10) Ruska Nalivka Cordial, cherry flavored—This product was shipped into Missouri. It purported by its label to be a genuine cherry cordial of foreign manufacture, whereas it was an imitation cherry cordial of domestic manufacture.

The fines for the above violations of the law aggregated $1,100 and costs.

The company was also charged in a separate proceeding with the following:

1. Adulteration and misbranding of Wild Cherry Bracer, purported to be a cherry product, whereas it was an imitation cherry cordial, artificially colored and flavored.

2. Misbranding of Fernet-Lenora Bitters. A portion of the label was written in the Italian language, but the product was not of foreign manufacture. The alcoholic content was not declared on the label. There was present about 40 per cent of alcohol by volume.

3. Alleged misbranding of Catawba Grape Juice and Concord Grape Juice.

4. Misbranding of Cognac Type Brandy. Purported to be a foreign cognac, but in fact was an imitation cognac of domestic manufacture.

5. Misbranding of Damiana. This product contained very little Damiana and contained 16.3 per cent of alcohol, which was a greater amount than declared on the label.

6. Adulteration and misbranding of Cordialized Apricot Brandy.

7. Adulteration and misbranding of Cordialized Fig Brandy. These brandies purported to be made from the fruits named, but in fact were imitation products artificially colored and contained neutral spirits from sources other than peaches, apricots and figs.

8. Adulteration and misbranding of Wild Cherry and Pepsin Cordial. Did not contain any wild cherry but contained sugar, alcohol, benzaldehyde and coloring matter.

Defendants entered pleas of *nolo contendere* and the fines for the above violations of the law aggregated $550. No penalty adjudged on account of the shipments of grape juice. (Paragraph 3.)

Total fines were $1,650.

ADULTERATED AND MISBRANDED.

Among the recent Notices of Judgment issued by the Department of Agriculture are the following:

1. The Crown Brewing Co., a corporation of Cincinnati, Ohio, was fined $25 and costs for the shipment of so-called "Famous Crown Malt," which was adjudged to be adulterated and misbranded. The product was labeled:

> "Our Famous Crown Malt Creates Strength and Vitality—Aids Digestion—Guaranteed by The Crown Brewing Co. Under Food & Drugs Act, June 30, 1906. Serial No. 17888, Brewed and Bottled by the Crown Brewing Co., Cincinnati, Ohio. Directions: One wine glass full before meals and upon retiring."

Adulteration was alleged because unmalted cereal products were substituted for malt. Misbranding was alleged because the product was labeled so as to deceive and mislead the purchaser in that it represented contrary to fact that the article was an all malt product. The product was shipped from Ohio into Pennsylvania.

2. The New Orleans Brewing Co. was fined $10 and costs for shipping from Louisiana into Florida, beer which was held to be adulterated and misbranded. The product was labeled:

> "Eclipse, contents 13 ozs., Extra Pale Export Beer—Alcohol 4 per cent—Brewed from the Choicest hops and malt only by the New Orleans Brewing Co., New Orleans, La. Guaranteed by the New Orleans Brewing Co., under the Food and Drugs Act, June 30, 1906. Serial No. 9806."

Adulteration was alleged because the label indicated that it was brewed from choicest hops and malt only, when it was really brewed from hops and malt, and some other cereal product. Misbranding was alleged because the label was misleading.

3. The Royal Manufacturing Co., of Kansas City, Missouri, was fined $25 and costs for the shipment into Kansas of a quantity of extract fruited lemon, which was found to be adulterated and misbranded. The product was labeled:

> "Daugherty's Royal High Grade Extract Fruited Lemon, 2 ounces. For flavoring Ice Cream, Cakes, Jellies, Ices, Pastries, etc. Guaranteed under the Food and Drugs Act, June 30, 1906. Serial No. 9854. Manufactured by Royal Manufacturing Co., Kansas City, Mo., U. S. A."

Adulteration of the product was alleged because its quality had been injuriously affected by the substitution of a dilute

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solution for the genuine lemon extract. Misbranding was alleged because the label was adjudged misleading.

4. The Royal Manufacturing Co. was likewise subjected to a fine of $50 and costs for the shipment from Missouri into Kansas of a quantity of extract of orange which was adjudged to be adulterated and misbranded.

5. One hundred dollars was the fine imposed on Louis Scianamea, of New York City, for the shipment into Rhode Island of so-called olive oil, which was alleged to be adulterated and misbranded. The product was labeled:

"Olio Puro E. Grantito di Fontanarosa Italy. Olio D'Oliva Sopraffino Di Fontanarosa Avellino Italy. Mike De Feo Solo Agent for the U. S. of America. Schenectady, N. Y."

Adulteration was charged because it was 62 per cent cottonseed oil. Misbranding was charged because it purported to be pure olive oil and also to be a foreign product, whereas it was not a pure olive oil nor was it a foreign product, according to the Government's claim.

POOR CATSUP.

According to a Notice of Judgment of the Department of Agriculture, a shipper of adulterated tomato catsup has been fined $100 and costs.

Clark W. Earll, doing business under the name of Earll Manufacturing Co., Kansas City, Missouri, was alleged to have shipped this tomato catsup from Missouri into Kansas. The product was labeled:

"Earll's Tomato Catsup Contains 1/10 of 1 per cent Benzoate of Soda. Earll Mfg. Co., Kansas City, Mo."

Analysis of a sample of this product by the Bureau of Chemistry showed that it consisted in whole or in part of decomposed and putrid vegetable substance, and the product was, therefore, alleged to be adulterated. This conclusion was based upon the findings of the bureau that the product contained 300,000,000 bacteria per cubic centimeter, and also mold, yeasts and spores.

Another Notice of Judgment, recently issued by the Department of Agriculture, states that the National Pickle & Canning Co., of Kansas City, Missouri, was fined $50 and costs for the shipment of adulterated tomato catsup from Missouri into Kansas. It was labeled as follows:

"Premium Brand Tomato Catsup. Packed by National Pickle & Canning Company, Dodson-Braun Branch, St. Louis, Mo., U. S. A. Contains 1/10 of 1 per cent Sodium Benzoate."

(Neck Label) This catsup is prepared from tomato pulp, vinegar, salt, granulated sugar, selected spices, and is free from artificial coloring matter. Guaranteed by the manufacturer under Food and Drugs Act, June 30, 1906."

Adulteration was charged because it consisted in whole or in part of a decomposed and putrid vegetable substance. The product contained about 140,000,000 bacteria per cubic centimeter.

Pencilled figures on ten barrels of tomato catsup, indicating the number of gallons contained, caused their seizure in the possession of Blaise Ueberschlag, New Orleans, Louisiana. Misbranding was charged because it was alleged that there was a shortage in contents at the time of interstate shipment, which did not agree with the pencilled figures. According to the figures the barrels contained, respectively, 54, 40, 41, 54, 54, 54, 54, 41, 54, 54 gallons. When gauged the barrels were found to contain, respectively, the following number of gallons: 50, 35, 38, 46, 52, 49, 49, 36, 51, 51.

The product was released to the Price & Lucas Cider & Vinegar Co., Louisville, Kentucky, the shippers, upon payment of the costs of the proceedings and the execution of a $200 bond, which pledged them not to ship the goods in interstate commerce bearing any false statement regarding contents.

FEED STUFFS AND VINEGAR.

Commencing December 1st, 1913, all concentrated commercial feeding stuffs will be required to conform with the law governing the manufacture and sale of such feeds in the State of Washington.

The representatives of the people of this State saw fit in their wisdom to enact this law and at the session of 1913 passed an act creating this department and placed the enforcement of this statute with numerous others under its administration.

It is the desire of the Agricultural Department of the State of Washington to render all assistance possible to all law abiding manufacturers and dealers that come within its jurisdiction, but it is hardly necessary to say that with wilful violators of the law the department can have no sympathy.

A recent state wide investigation of the vinegar products sold and manufactured within the boundaries of this State discloses a deplorable and intolerable situation and one which demands an immediate and drastic remedy.

This investigation has disclosed the fact that in most instances manufacturers and dealers have very carelessly and in many instances indifferently sought to comply with the law. Many violations are so flagrant and inexcusable that prosecutions will follow.

These violations of the Pure Food Law have been so inexcusable and unjust that our department has been forced to adopt a new ruling on vinegars, which is as follows:

"No vinegar shall be sold as apple, orchard or cider vinegar which is not the product of pure unadulterated apple juice.

"All vinegar made wholly or in part from distilled liquor shall be branded 'Distilled Vinegar,' and all such distilled vinegar colored in any manner shall have printed plainly on the label that it is colored and stating the object of the use of the coloring matter."

It will be noticed that percentages have been omitted in these rulings. These omissions were purposely made. Pure unadulterated apple juice will produce a vinegar carrying from 4½ to 6 grams of acetic acid per one hundred (100) cubic centimeters with a corresponding strength in solids and ash.

This Department has ruled against any dilution of vinegars. Any dilution or other efforts to change the strength or purity of vinegar coming under our jurisdiction will be treated and prosecuted as adulterations. These rulings take effect immediately and supersede all former rules and regulations pertaining to vinegar in this state. I remain,

Yours truly,

J. J. HIGGINS,

Ass't Comm'r Foods, Feeds, Fertilizers, Drugs, Oils & Bakery, Insp.

ADULTERATED DAIRY PRODUCTS.

Washington, D. C.—Recent notices of judgment issued by the U. S. Department of Agriculture, concerning cases arising under the Food and Drugs Act, state that the following fines have been imposed on shippers of adulterated dairy products

Cream—Harry B. Witter was fined $25 for the shipment from Frederick, Md., into the District of Columbia of a quantity of cream which was charged to be adulterated in that butter fat, one of its valuable constituents, had been abstracted wholly or in part from it.

Harry Fouche was fined $15 for the shipment from Araby, Md., into the District of Columbia of cream which was alleged to be adulterated in the same manner.

Other fines were imposed on shippers of cream adjudged to be adulterated, as follows:

Fifteen dollars on the United Dairy Co., of Barnsville, Ohio, for shipment of cream from Ohio to the District of Columbia.

Two of $10 each on Carter Kelly, of Leesburg, Va., for shipment of cream from Virginia into the District of Columbia.

Ten dollars on William Edward Howe, Washington Grove, Md., for shipment of cream from Maryland into the District of Columbia.

Ten dollars on Curtis E. Burdette, Araby, Md., for shipment of cream from Maryland into the District of Columbia.

Cheese—A fine of $20 was imposed on Henry B. Terrett, Washington, D. C., for the sale of a quantity of cheese which was adjudged to be adulterated and misbranded. Adulteration was alleged because butter fat had been left out and abstrated in whole or in part. Misbranding was alleged because the product was an imitation of and sold under the name of cheese.

Milk—A fine of $10 was imposed on William D. N. Zimmerman, Adamstown, Md., who pleaded guilty to an information charging the shipment into the District of Columbia of a quantity of milk adulterated by an addition of water.

FINED FOR UNLAWFUL SHIPMENT.

A Notice of Judgment just issued by the United States Department of Agriculture states that Dr. J. B. Lynas & Son, a corporation of Logansport, Indiana, has been fined $200 and costs for the shipment into Illinois from Indiana of flavors said to be adulterated and misbranded.

Adulteration of the vanilla flavor was charged because a

FOOD INSPECTION IN SWEDEN.

According to a recent report issued by the Department of Food Inspection of the Board of Health of the city of Goteborg, Sweden, tranmitted by Consul Douglas Jenkins, 6,000 visits of inspection were made during 1912, including nearly all the places in the city where food products were sold, stored or manufactured. As a result of the inspections, 104 parcels of meat and other foodstuffs, weighing in all 2,600 pounds, were condemned. On 56 occasions the condemned goods were found in stores and shops, 35 times in sausage factories, 7 times in warehouses and 6 times at the railway stations and on vessels. In all except one case the cause of condemnation is reported to have been putrefaction.

Meat imported from foreign countries is inspected at the custom house in Goteborg by the city veterinarian. During 1912, 204,000 pounds of meat was inspected against 148,700 pounds in 1911. Of this import nearly 2,000 pounds was condemned by the inspectors because it was tainted or otherwise unfit for human food. In addition to what was actually condemned, 3,000 pounds of meat and 3,500 pounds of salted organs were refused entry and returned for the same reasons.

There was a limited import of salted horse meat during the year, said to have come principally from Russia and the United States. The total import, however, did not reach 8,000 pounds. The import of salt beef, principally from the United States, was somewhat less in 1912 than in 1911, being only 80,000 pounds. The import of salt mutton showed a decided increase, having been 90,000 pounds in 1912, against 35,000 pounds in 1911. This meat is said to have been largely supplied from Iceland. The report declares that both the American salt beef and the Iceland mutton were of excellent quality.

The number of sausage factories in Goteborg at the end of 1912 was 52, against 57 in 1911. There were 265 butcher shops, against 274 in 1911. There were 401 milk shops, including 3 dairies and 6 warehouses. Thirty-three milk shops were closed during the year and 33 new ones were permitted to open after the required inspection and approval. Of the milk and cream offered for sale to the public, 5,221 samples were examined. The mean content of fatty substance in unskimmed milk is reported to have been 3.34. Regarding tests for purity, out of 4,304 samples, 23 per cent have shown pronounced sediment. Of 744 samples of cream tested, 98 contained less than the 12 per cent fatty substance prescribed by the food regulations. However, there were samples containing much more than the percentage required, so that the average was for all samples inspected 15.19 per cent. The fat content of skimmed milk averaged 0.91 per cent. The Board of Health is at present considering the promulgation of certain new regulations for handling milk in Goteborg.

CULTIVATION OF RICE IN SIAM.

More than 40 varieties of rice are cultivated in Siam. The "hill" rice is a peculiar variety planted on the hillsides in northern Siam, and is said to be marvelously productive. When ripe the ears of this rice are black, but when husked and boiled the grains are of a reddish color, and have a peculiar fragrance. The "glutinous" rice is another variety, grown in the mountain valleys of northern Siam, and forms the main food for the people of those regions, while white rice only is grown and used by the people on the plains of lower Siam. A common kind of rice cultivated on land liable to floods during the rains is said to grow as much as a foot in twelve hours, so that the plant often attains a height of ten feet in its efforts to keep its leaves above water. The rice commonly grown in Siam consists of the so-called light crop, which is planted on irrigated land, often as early as February, and reaped in May or June, and the heavy crop, which is planted between July and September and harvested in December and January. A prominent Siamese rice grower gives the following description of the rice supplied for export: Rice that is exported can be roughly divided into three classes—Na Muang, Pasak and garden rice. Na Muang is the cheapest quality, and is grown chiefly in the district of Ayuthia. The grains are short and have a great deal of red rice mixed with them, and they are also very much cracked and therefore liable to be broken in milling. Pasak rice, which is of better quality than Na Muang, comes from the Pasak river district, and is a variety of golden rice. It is only due to the soil of this district that it is of poorer quality than the ordinary garden rice. The so-called garden rice forms the main bulk of rice that is exported, and is of the best quality. Na Muang and Pasak rice are used for mixing with it. This rice was formerly grown in the ditches of vegetable gardens, but is now grown on vast tracts of land, both by broadcast sowing and transplanting processes, so that the name garden has lost its original meaning. On account of the exhibitions of rice during the last three years very fine varieties have been brought to the notice of cultivators. Many of the varieties exhibited are considered by experts to be among the best in the world.—*London Journal Royal Society of Arts.*

BACTERIA IN FLOUR.

An authority on the chemistry of flour and bread calls attention to the fact that flour is not sterile; on the contrary, it contains a large and varied assortment of bacteria, mould spores, etc. A series of experiments carried out by John Kirkland with a high-grade patent flour demonstrated that a given sample contained some 30,400 bacterial organisms with seven mould spores (moulds in bread). Most of these organisms were common to air and water, and would be killed at the temperature of the baking oven. It is very doubtful whether the mould spores would escape destruction. The probability is that when mould develops in bread, it is from spores deposited upon sut surfaces from the air. The color is due to the spore bearing heads, which differ in the various species. Each of these heads carries immense numbers of spores, which when ripe are distributed in a fine cloud into the air. These spores float upon water owing to the fat contained in the cell, and therefore in all cases where it is desired to exterminate mould, the only agent of real value is fire. All mouldy material should be burned, and dough troughs and other utensils should be well singed with a bunsen flame.

The following are the common moulds: *Mucor Mucedo,* which form a white growth with dark brown or black spore heads. *Penicillium glaucum* is the familiar sage-green mould so frequently found on stale bread. *Aspergillus niger* is a common black mould often attacking bread. *Oidium Aurantiacum* is the name given to the red bread fungus which produces an orange-red growth throughout the bread.

Moulds flourish in bread because of its faintly acid nature, and as already noted, bacteria as a rule do not establish themselves for the same reason, a faintly alkaline reaction suiting them best.

OLEOMARGARINE SALES GROW.

The report of the commissioner of internal revenue for the fiscal year ending June 30 shows that the production of oleomargarine increased in one year from 126,251,203 pounds to 143,157,238 pounds, or very nearly 17,000,000 pounds. Despite the handicap of taxation on the product itself and the license that is charged wholesalers and retailers, oleomargarine is steadily making its way in the markets. The high cost of butter has, of course, had something to do with this increase, but a greater reason is the fact that the public is awakening to the fact that it is a product which is meritorious in itself and because of the rigid inspection given it by the Government it is a more wholesome product than butter. Though it has not been extensively advertised by its makers, consumers of it have found that it is as palatable and as nutritious as butter, and where they have learned that it is prepared under the most sanitary conditions they have become steady patrons of it.

With the tax and high license features removed, there is no question but that the consumption of oleomargarine would be greatly increased, and at the same time without decreasing the consumption of butter, because under the circumstances our supply of butter is so limited that all of it will be used.—*National Provisioner.*

While there has been great advance made among millers in their efforts to increase their knowledge along the lines of scientific research, perfection is yet a long way in the future, as, among the rank and file of the smaller millers, and by far too large a number of the larger ones, a deplorable lack of information about the chemical character of the various grades of wheat from the same locality and the same commercial grades of wheat grown on varying soils and under varying climatic conditions. A thorough knowledge of these things is necessary to the mental equipment of any miller who wishes to compete in the markets of the world for its flour trade.

It is not so much the price asked by certain energetic business houses but the way they have of persistently presenting their case. Or in other words, it pays to use the persuasive power of printer's ink.

compound of vanillin, coumarin, and vanilla extract had been mixed with it so as to injuriously affect its quality. Misbranding was charged because the statement printed on the pasteboard carton and package was false. The statement read "Vanilla Flavor" while said product was not vanilla flavor. Among other remarks on the label was the information that "Quality Talks."

The lemon flavor shipped by the defendant was changed because a dilute lemon flavor, artificially colored, had been mixed with it so as to reduce its strength. Misbranding was alleged because the product was not a genuine lemon flavor as the label indicated and the statement, "Compound made from pure oil of lemon, orange color, etc.," was printed in such small and inconspicuous type that it was not considered sufficient to correct the misleading impression conveyed by the words "Lemon Flavor" in large type.

The indictment conveyed in this case also charged the defendant made another shipment of so-called vanilla flavor from Indiana into Illinois, which was adulterated and misbranded. Printed on the side of the cartons containing the bottles was the statement "J. B. L. Vanilla is made with the same care as a high class perfume. The finest Mexican and Bourbon beans are used and aged in wood containers. Crystal Tonka, also Tincture of Vanilla, the active principle of the Vanilla Bean, are used as a binder to prevent cooking and freezing out. A small amount of color and sweetener is added. This combination, together with the method of compounding, makes the finest vanilla obtainable for all purposes."

EXCESSIVE BACTERIA IN MILK.

Notices of Judgment, just issued by the Department of Agriculture, state that fines have been imposed on several shippers of adulterated milk and cream.

John Fisher, Newport, Kentucky, was fined $100, and sentenced to 60 days' imprisonment for shipment from Kentucky into Ohio of milk and cream alleged to be adulterated. Some of the product was labeled on the cap:

"Guaranteed Pure Milk." Please put bottles out every day."

Twenty-nine samples of milk, analyzed separately, were either skimmed or skimmed and watered, and all contained visible sediment of dirt and filth. Five samples of alleged cream were found to contain only 12.5 per cent of milk fat and to be artificially colored with annatto.

Adulteration of the product was alleged because the milk and cream consisted in part of filthy and decomposed animal and vegetable substance, since they contained an excessive number of bacteria, including members of a group known as "B. coli."

The 60 days' jail sentence was suspended on condition that the defendant keep out of the milk business.

The Lehigh Valley Railroad Co. was charged with having sold on its dining car so-called "cream," which contained excessive numbers of objectionable and unhealthful bacteria, and was fined $25 and costs, since the transaction involved the shipment from Pennsylvania into New Jersey of said milk and cream. Adulteration was alleged for the reason that said products consisted in whole or in part of a filthy and putrid animal and vegetable substance.

Ralph S. Richardson of Pierceville, Indiana, was fined $25 and costs for shipment into Ohio of a quantity of milk alleged to be adulterated. The adulteration charged in this case was that water had been added to the milk. The court imposed a like fine on Hubert E. Nead, also of Pierceville, Indiana, upon similar charge.

WILL USE BACTERIAL COUNT.

Information has come to the Department of Agriculture that persons representing certain milk dealers are circulating the statement that the U. S. Department of Agriculture has abandoned all bacteriological examination of milk as a test for its cleanliness and fitness for human consumption.

The Department, therefore, has issued the following statement of its position:

1. All statements that the Department has abandoned, or will abandon the bacteriological examination of milk shipped in interstate commerce as a means of determining its cleanliness and fitness for human consumption are without foundation. While the Department has not fixed any specific bacteriological count as a standard in the enforcement of the Food and Drugs Act, it does use bacteriological examinations in reaching its conclusions, and will continue to use these methods irrespective of what action any Association may take. The Department has never stated that it will not use such methods.

2. The only change in policy in the Department in regard to bacteriological examinations has been to discontinue basing prosecution upon the bacteriological examination of a single sample. It now collects a number of samples at different times and examines them bacteriologically. If the bacteriological examination shows that the milk is not clean, but is not a serious menace to health, and the bacteriological deviation from clean milk is a small one, the Department, through the Bureau of Animal Industry, endeavors to teach the dairyman how to produce clean milk. If he then neglects to take measures to make his milk clean and safe for human consumption the Department, by taking action in the case of milk shipped in interstate commerce, endeavors to force him to bring his milk to a point of safety and food excellence through prosecutions under the Food and Drugs Act.

SEIZURES OF FOOD.

Seizure under the Food and Drugs Act, on the recommendation of the Department of Agriculture, of 465 sacks of beans shipped by J. P. Burroughs & Sons, Flint, Michigan, has been made at Hamilton, Ohio.

Adulteration was charged because analysis showed the beans to consist in whole or in part of filthy, putrid, or decomposed vegetable matter. The court has not yet passed on the issue as to whether the product is adulterated and this issue will be tried out.

Two recent seizures announced by the Department of Agriculture are of four hundred and thirteen sacks of flour shipped by the H. L. Halliday Milling Company, of Buffalo, N. Y., and one and one-half barrels of condensed milk shipped by C. H. Kleinbeck Company, of Geneva, Ill. The court has not yet decided the issue whether the products are actually adulterated and these issues will be tried out.

It was charged that the flour was adulterated because it consisted of filthy, putrid, or decomposed vegetable substance. The seizure of the flour prevents the possibility of its being mixed with better grades so as to pass muster when baked into bread and biscuits. The flour had already been refused by the company to whom it was consigned in Jersey City, and was standing on their docks when discovered. It is said to be the practice of scavengers to take such musty flours and mix them with about eighty per cent good flour and foist them on an unsuspecting public.

The condensed milk was charged to be adulterated and misbranded because it was sold as condensed milk when, actually, it was sweetened condensed skimmed milk. This seizure was made at McKeesport, Pa. The court has not yet decided the issue whether the product was actually adulterated and misbranded and this issue will be tried out.

PREVENT SHIPMENT OF BUTTER.

A Notice of Judgment just issued by the Department of Agriculture states that 26 tierces of butter, in possession of the A. H. Bull Steamship Co., Pier 7, North River, New York City, were seized in a proceeding instituted under the Food and Drugs Act.

It was alleged that the product had been delivered by V. Lopez & Company to said steamship company for shipment from the state of New York to Porto Rico. Adulteration was charged because it consisted in part of a filthy and decomposed animal substance; in other words, was rancid and moldy butter.

The product was unlabeled except for stencil shipping directions. Investigation by the Department of Agriculture showed that of the butter contained in these 26 tierces, a quantity amounting to 21 tierces was fit for reworking, but the balance was fit only for technical purposes. The Board of Food and Drug Inspection recommended that the part unfit for food should be released upon being denatured and marked "Moldy grease; Not to be used for food purposes."

The court then ordered that the product be released to the claimants upon the foregoing conditions and upon payment of all costs of the proceedings and the execution of a $250 bond for the fulfillment of said conditions.

SEIZURES OF LIQUORS AND FLOUR.

The following seizures of food products have been made at the instance of the U. S. Department of Agriculture:

Six barrels and twenty-three bottles of wine alleged to have been made by the Sweet Valley Wine Company, Sandusky, Ohio, and shipped by the Bay View Wine Company, Sandusky, Ohio, were seized on September 23, at Dallas, Texas. It was alleged that the product was adulterated and misbranded in that it is labeled scuppernong wine when in fact it is a base wine or imitation scuppernong wine. The

Illinois Vinegar Mfg. Company

19th and Rockwell Streets
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MANUFACTURERS OF HIGH GRADE
DISTILLED VINEGAR

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WE ARE the largest manufacturers in Chicago of Catsups and Prepared Mustards, guaranteed under the National Food and Drugs Act of June 30, 1906.

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KINGSFORD'S CORN STARCH

THAT old standby, Kingsford's Corn Starch, is very new-fashioned indeed since housewives are looking for purity in food products, nutritive value and moderate cost.

Owing to its extreme delicacy and purity, Kingsford's takes the full flavor of any kind of seasoning. With it can be made dozens of dainty desserts and appetizing dishes that give variety to the home table.

You can have no idea of the possibilities of Kingsford's if you have been using ordinary Corn Starches and inferior substitutes, which are at the same price as Kingsford's.

See that you are given the original and genuine Kingsford's Corn Starch of Oswego; prepared by the careful process that has made Kingsford's the finest Corn Starch for over sixty years.

Send your name today for Cook Book 00, that tells all about making dainty desserts — and gives 168 recipes for all kinds of dishes.

National Starch Company
NEW YORK

issue whether the product is adulterated and misbranded has not yet been tried in the courts and this issue will be brought to trial.

Ten cases of "Ferro-China-Bitters" and "Fernet Milano," alleged to have been shipped by the General Importing Company, New York, N. Y., were seized at Wilkes-Barre, Pa., on September 22. It was charged that the product was misbranded in that it is packed and labeled in simulation of an article of foreign manufacturé, also in that the proportion of amount of alcohol is not declared. The issue of whether the product is misbranded has not yet been tried in the courts and this issue will be brought to trial.

Two hundred and fifty-four sacks of flour, alleged to have been shipped by the Hardesty Milling Company, Canal Dover, Ohio, were seized in New York on September 22. The allegation was that the product was adulterated in that the goods consist in whole or in part of filthy, putrid, or decomposed vegetable substance. The issue of whether this product is adulterated has not yet been tried in the courts and will be brought to trial.

ADULTERATED WITH PETROLEUM OIL.

A new adulterant, namely, petroleum oil, it is alleged, has recently been found to be used in the manufacture of the popular form of biscuit or wafer which consists of an upper and lower crust covering a cream filler, in sandwich form. Seizure of these cream wafers at Cincinnati, Ohio, has just been made pursuant to proceedings instituted by the U. S. attorney at Cincinnati on the report of the secretary of agriculture.

The shipper was the Leonard Products Company, of Brooklyn, N. Y. Seven full cans and ten cans partly filled were seized. Adulteration was charged in that the cream filler of the wafers contained twenty per cent of mineral oil, which amounts to approximately three per cent of the total weight of each wafer.

According to the findings of the Department of Agriculture, this petroleum oil, which is a lubricant rather than a product containing food value, was used in connection with sugar and milk in the preparation of the creamy filler, and substituted, because of the cheapness, for cocoanut oil or butter, which might have been used.

The use of this substance in an article of food is considered an adulteration and in violation of the Federal Food and Drugs Act, and seizure was recommended by the department, of the consignment which had been sampled. The court has not yet decided the issue whether the product was actually adulterated and this issue will be tried out.

SO-CALLED "SCUPPERNONG" CONDEMNED.

No claimant having appeared for ten barrels of so-called scuppernong wine which was alleged to be adulterated and misbranded, the wine was sold to the highest bidder after it had been properly labeled, according to a Notice of Judgment of the Department of Agriculture. Before the wine was sold the marks, brands and labels on the product were obliterated and it was relabeled:

"A compound and mixture of pomace and other wines." The product as it was seized was labeled:

"Special Scuppernong Bouquet"

on each of the ten barrels, containing seven hundred and twenty bottles, and the bottles were labeled:

Main Label: "Special Wine. Belle of the Valley, Scuppernong Bouquet, Delaware and Scuppernong Blend, ameliorated with sugar solution."

Neck Label: "Guaranteed by the Sweet Valley Wine Company under the Food and Drug Act, June 30, 1906. Special."

The wine was seized in the possession of Max Gordon, Indianapolis, Ind. Adulteration was charged because pomace wine and other wines had been substituted for scuppernong wine. Misbranding was charged because the statement that it was scuppernong wine was alleged to be false and misleading.

MISBRANDED ALE.

According to a recent Notice of Judgment issued by the Department of Agriculture, the Washington Brewery Co. of Washington, D. C., was fined $75 for the shipment of so-called sparkling ale, which was adjudged to be adulterated and misbranded.

Adulteration of the product was alleged because beer had been substituted in whole or in part for the "sparkling ale." Misbranding was alleged because labels on the bottles bore the statement "Sparkling Ale—Brewed from selected malt and hops," which was misleading as the contents were found to have been beer brewed wholly or in part from a cereal and sugar product other than malt.

DISEASED MEAT SEIZED.

But for the close inspection of Commissioner Wallis' inspectors diseased meat would have been sold over the block at Idaho Falls, Idaho. Recently Deputy George Robinson visited Luxton's abbatoir and found among the offal on the slaughtering bed the liver and lungs of a cow which showed advanced stages of actinomycosis. He also found the body of an unborn calf fully developed and ready to be born.

Commissioner Wallis was notified and was soon on the ground, bringing with him Deputy A. H. Wilson, who was federal meat inspector at Lewiston. Five dressed beeves were found in the slaughter house under seal, ready to be hauled to market. After considerable investigation the animal from which the diseased organs came was located, and also the carcass from which the calf was taken. Commissioner Wallis appeared before Probate Judge Crowley and swore to a complaint against William Luxton, who appeared and pleaded guilty and was fined $50 and costs.

The two condemned beeves were then destroyed. An inspection of the slaughter houses of A. W. Rates and Joseph Brandl was then made, with the result that Commissioner Wallis closed down both places and revoked their licenses. This stops the killing of any more animals in these places.

BOLOGNA SAUSAGE CONDEMNED.

Ten thousand pounds of bologna sausage were condemned at Montgomery, Ala., by City Pure Food Inspector Brooks. The sausage were hauled to the city incinerator and destroyed, by order of Commissioner W. R. Brassell of the City Health Department.

Dr. Brooks, the inspector, found the sausage in a local cold storage plant, while making his regulation visitation, and on finding one box of the sausage to be unfit for food he made a thorough examination of the entire quantity. It totalled 10,000 pounds and the entire lot was condemned.

The sausage was shipped to a local commission merchant from Houston, Texas, and is the largest amount of foodstuff ever condemned by the city at one time. A request was made of the City Health Department that the privilege be granted to ship the sausage back to the Texas town, but this was refused.

Condemnation of the sausage before it was placed on the retail market and shipped out to near-by points, probably saved many cases of serious illness as the meat was in such condition as to have made anyone ill who ate it.

CONDEMN BAKER'S FLOUR.

Two large wholesale grocery concerns of Montgomery, Ala., have been handling flour known as "baker's flour," which is unfit for human consumption, according to Professor B. B. Ross, State chemist, who made an analysis of it upon request of C. H. Billingsley, chief clerk of the pure food department of the State, who sent samples of the flour to the State chemist.

The flour in question contains weevils and worms has been used by certain bakers of the city. When Mr. Billingsley learned of the condition of the flour, he at once began an investigation and sent samples to the State chemist, who has notified Mr. Billingsley that the flour contains weevils and worms and is utterly unfit for human consumption. There are about two hundred barrels of this flour on hand in the two grocery establishments, it is understood, and Mr. Billingsley stated yesterday that he would condemn the entire shipment at once.

In justice to the larger bakeries of the city, it is said that they buy all their flour direct and have not used any of the infected flour sold locally by the two wholesale houses.

ADULTERATED RYE FLOUR SEIZED.

On the recommendation of the Department of Agriculture, seizure of 85 bags of adulterated rye flour was made on September 18th. The product was seized in New York City, having been shipped by H. Hicks, of Pleasant Valley, N. Y.

Adulteration is charged for the reason that the product is said to consist in whole or in part of a filthy, putrid or decomposed vegetable substance. The courts have not, of course, determined whether this article is unlawfully adulterated, but the issue will be tried out in the future.

Dr. S. H. Ross, chief of the Omaha laboratory of the Bureau of Chemistry, spent a week in Chicago looking up data for use in a federal net weight law. Dr. Ross spent a great deal of his time at the packing houses weighing meat and getting needed information from the men engaged in the meat packing industry.

BUY PURE COMPRESSED YEAST

The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

That is how we administer the Food Laws in this country.

In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

Thereupon the Austrian Government promptly passed a law prohibiting altogether the use of starch in Yeast.

We Do Not Use Starch in Yeast

A. P. CALLAHAN & COMPANY

2407 La Salle Street Telephone Calumet 410 **CHICAGO, ILLINOIS**

Get the Genuine JELKE GOOD LUCK MARGARINE

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Refuse imitations offered in similar cartons

If your dealer cannot supply you, write or phone us and we will see that you are supplied.

ORDER A PACKAGE TODAY

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CHICAGO

TAKE WARNING!

at the first signs of foul odors arising from sewers, drain pipes, damp cellars, under porches, in lavatories, wash basins, sinks, cooking vessels, cream separators, churns, milk cans, pails and refrigerators.

Look Out For Disease

Foul odors are nature's warning of the presence of the death-dealing Bacteria. Don't neglect the health of your loved ones. Don't invite typhoid, scarlet fever, diphtheria and other fatal diseases. Remove the cause. Destroy the germs. Kill all odors. Make and keep every nook and corner of your home sweet, clean, pure and safe. Use

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The wonderful new discovery. A germ destroyer 10 times more powerful than carbolic acid, still NON-POISONOUS to human and animal life.
Just sprinkle or spray a dilution of this powerful disinfectant where needed and watch results. B-K contains no oils, tar, or acid—won't affect the flavor of food kept near it—leaves no disagreeable odor after using.



FREE Sample on Request

If you will write us at once mentioning this paper we will be glad to send you FREE a sample of B-K to try. You will find it indispensable in the home because of its wonderful effectiveness and freedom from danger in use. As a gargle or spray for sore throat, as a mouth wash, or for cleansing and healing cuts, sores, wounds and bruises, and for rectal and vaginal use where a reliable disinfectant is required, it has no equal. B-K is surprisingly inexpensive. It **Costs Less, Goes Further and Does More** than any other disinfectant you can buy. Write for FREE sample today. Address—

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Statement of the ownership, management, etc., of AMERICAN FOOD JOURNAL, published the first day of each month at Chicago, Illinois, required by Act of August 24, 1912.

Editor, H. B. Meyers, 15 South Market street, Chicago, Ill.

Business Manager, H. B. Meyers, 15 South Market street, Chicago, Ill.

Publisher, The American Food Journal (inc.), 15 South Market street, Chicago, Ill.

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H. B. Meyers, President and Secretary, 15 South Market street, Chicago, Ill.

Frances E. Meyers, Treasurer, 15 South Market street, Chicago, Ill.

Dr. John Dill Robertson, 1422 W. Jackson boulevard, Chicago, Ill.

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HERMAN B. MEYERS.

Sworn to and subscribed before me this 2d day of October, 1913. JAMES A. SAGE.

(My commission expires January 28th, 1916.)

CLEAN FOOD COUNTER.

It won't do today, this showing of food products in an unsanitary way. The modern woman who buys groceries wants to see them in sanitary containers. The clean food grocery counter, sold by the Sherer-Gillett Co. of Chicago, satisfies the demand for a sanitary way of showing food products. The following letter was received by this firm from Commissioner S. E. Strode of Ohio:

"I take this means of thanking you for the loan of two of your sanitary counters for our model grocery recently put on at the Ohio State Fair held here Sept. 1 to 5. Our object was to teach in a forcible way the lessons of sanitation by contrasting insanitary conditions in a 'bum' grocery alongside of this sanitary one. I find it a very effective method and thousands of Ohio citizens are becoming more discriminative in their purchases of food supplies and are insisting on greater cleanliness, which is insured by use of such sanitary counters as yours, which allows inspection of grade and quality of supplies without exposure to contamination of dirt, flies and bacteria.

"It would greatly lessen our labors in the direction of better and cleaner food if every grocery in Ohio could be equipped with sanitary counters similar to those which your company places on the market."

ADVERTISING LAW TESTED.

The first test case to be brought under the Massachusetts law making it an offense punishable by a maximum fine of $500 to insert deceptive advertisements in publications or on placards will be heard soon in the Superior Court of Boston, Mass. Two secret indictments against Michael Cunningham, of Revere, and William McKebbitt, of Chelsea, in connection with the sale of a horse for $275 to John McDonald, of 24 Munroe street, Springfield, June 17, were returned recently.

It is claimed by the government that an advertisement was inserted in a daily paper asserting that the Chelsea Dairy Co., of 761 Broadway, Chelsea, was replacing its horse-drawn vehicles with motor trucks and that for this reason horses were to be sold at unusually low prices.

The contention is that a horse that McDonald purchased after reading this advertisement cost him $275, and after a trial it proved to be other than he anticipated.

The "pure advertising" bill, as it has been called, is intended to protect the public from deceptive and misleading advertisements, which by false assertion and inducement tend to benefit the person who causes their insertion or display in certain public places or in publications.

A young assistant district attorney, while conducting a case wherein one woman had called another unmentionable names, put the plaintiff on the stand and directed her to tell just what the accused had said.

"But I just can't," she gasped in surprise; "why it's not fit for any decent person to hear."

"Well, then," he replied, cheerfully, "just step up and whisper it to His Honor."

A SEALED PAPER CARTON.

The United States Department of Agriculture has just issued a bulletin (No. 15) in which a sealed cardboard container for cereals is described, which should do much to protect cereals from insect attack.

The economic importance of such a container for cereals which the grocer sells by the box is greater than at first appears. Packages may become infested while in the grocer's storeroom or on his shelves. Warehouses are also usually more or less infested by insects which crawl around on the packages. When such packages are purchased, the buyer, on discovering that they have been attacked, usually returns them to the grocer, the grocer returns them to the mill where they were prepared and the mill screens the cereal and sells it as feed. The exact financial loss due to these conditions can not be accurately determined, but extensive observations lead to the belief that it is much greater than most millers suppose.

SAID TO CONTAIN LEAD.

Upon the recommendation of the Secretary of Agriculture, proceedings under the Food and Drugs Act were instituted in the United States District Court for Indiana for the seizure of three barrels of calcium acid phosphate, a substance customarily used in baking powder, which it was alleged had been shipped by the Provident Chemical Works from St. Louis, Mo., to Terre Haute, Ind., in violation of the aforesaid act. It was further charged that the product was adulterated within the meaning of the Food and Drugs Act because it contained lead, an added poisonous and deleterious ingredient which might render the article injurious to health. Seizure was effected by the U. S. Marshal by direction of the court and the goods will be held in custody pending a decision by the court whether they are adulterated as alleged.

$150 FINE IS IMPOSED.

A Notice of Judgment just issued by the U. S. Department of Agriculture states that the Guy G. Major Co., of Toledo, Ohio, has been fined $150 for the shipment of feed meal in violation of the Food and Drugs Act. Adulteration of the product was alleged because cottonseed meal had been mixed and packed with the product so as to reduce, lower and injuriously affect its quality and strength, and because cottonseed meal had been substituted in part therefor.

APPEALS FROM BORIC ACID FINE.

F. J. Price of Minneapolis, Minn., has filed an appeal with the United States Supreme Court calling into question the right of the state of Illinois to fine him under the Illinois statutes classifying boric acid as unwholesome and prohibiting its sale as a food preservative. The Supreme Court of Illinois held there was enough doubt among scientists as to the wholesomeness of boric acid in foods to justify the law.

FOR SALE—A canning factory; fully equipped and modern in every way. Additional capital required; present interests will take part stock, and would consider real estate trade as partial consideration. Plant located in the west, and supplying markets of eight states. Brands successfully established. Abundant raw material. A splendid chance for an investor desiring a live and active business. Address R. C. C., care The American Food Journal.

Food and Drug Law

McLanahan & Burton announce the initiation of a Department of Food and Drug Law, in charge of Mr. Gustavus B. Spenee, for the past four years a member of the Office of the Solicitor, United States Department of Agriculture.

Appearances before all Boards and Bureaus of the Department of Agriculture and other Federal Departments, State Food and Dairy Commissions, and in State and Federal Courts. Correspondents in every State.

Revision of labels and advertising literature.

McLANAHAN & BURTON

Union Trust Bldg., Washington, D. C.

USE OF CORN AND COWPEAS.

The use of kaffir corn and of cowpeas as food for man might well become more general, according to experts in nutrition of the U. S. Department of Agriculture, who have just issued a new bulletin (Farmers' Bulletin No. 559), entitled, "Use of Corn, Kaffir, and Cowpeas in the Home." Ways of preparing these crops and Indian corn for the table, as well as summaries of tests of their nutritive value, are given in this pamphlet.

The popular belief that the food value of the different sorts of Indian corn, such as white, yellow, red, blue and black, varies as greatly as their color has not proven to be the case, although they vary somewhat in flavor. The average percentage composition of these various kinds of corn is as follows:

Water	10.8
Fat	4.3
Crude fiber	1.7
Protein (muscle-building elements)	10.0
Starch, sugar, etc.	71.7
Mineral matter	1.5

The fuel value per pound is 1,795 calories (heat units).

In combining one food with others it is sometimes convenient to know how nearly it comes to being in itself a balanced ration. In the rational diet, it is estimated, corn meal should be combined with foods which have more protein (muscle-building elements) or less fat and carbohydrates (energy-producing elements) than it has itself. Among such foods are milk, most kinds of meat and fish, eggs, and cheese. It is the common practice to eat corn meal mush with milk, to add cheese to corn meal mush which is to be fried, or to serve cornmeal preparations with meat. Fish balls with corn meal is a dish which approximates the balanced ration. Here is the recipe:

Corn Meal Fish Balls.—Two cupfuls cold white cornmeal mush, 1 egg, 1 cupful shredded codfish, 1 tablespoonful butter. Pick over the codfish and soak it to remove salt, if necessary. Combine the ingredients and drop by spoonfuls into hot fat. Drain on porous paper. These codfish balls compare very favorably in taste with those made with potato and are more easily and quickly prepared.

Other recipes for cooking corn meal are given in the Bulletin and it is recommended that as dishes made with corn meal are likely to be more tender than those made with wheat, the use of small amounts of corn meal in the making of such foods as waffles and doughnuts is desirable.

So closely does the composition of corn meal resemble that of other prepared cereals that, pound for pound, they may all be considered to have the same food value. When corn meal or kafir meal sells for 3 cents a pound, therefore, and some other cereal for 8 cents, the housekeeper may consider that she secures more than twice as much food for her family for a given sum when she selects corn or kafir meal.

Cowpeas as Food for Man.—Kafir corn and cowpeas are particularly well suited for use in localities where they will mature crops and both their natritive value and cheapness, as well as their good flavor and the numerous ways in which they can be used should recommend them to the housewife. Though favorably known as a staple food in the Southern States, the cowpea has not come into general use throughout the United States. It is well worth greatly extended use as it is wholesome, nutritious and possesses a peculiar delicate and pleasing flavor. Cowpeas are used on the table in three forms: In the pod, shelled green, and shelled dried. In these three forms they correspond respectively to string beans, shelled green peas, and dried navy beans, and call for much the same methods of preparation for the table. Among the recipes given for cooking cowpeas are the following:

Sandwich Filling.—The mixture of cooked peas and cheese may be used for a sandwich filling. In fact, cooked cowpeas mashed and freed from the skins by being put through a sieve may form the basis of a large variety of sandwich fillings. The cheese may be omitted and chopped celery or nuts added, or the peas may be mixed with a little butter and a few drops of vinegar or lemon juice. Leaves of lettuce dipped in salad dressing add to the attractiveness of the sandwiches.

Cowpea Salad.—Mix cold cooked cowpeas with French dressing and serve on lettuce, endive, or watercress. The proportions for the French dressing are: Three tablespoonfuls of salad oil, 1 tablespoonful of vinegar, and ½ teaspoonful of salt. Add a few grains of cayenne pepper.

Baked Cowpeas.—Cook 1 quart of large white cowpeas slowly in water until they begin to soften. This will require fire or six hours. Put them into a bean pot, add ½ pound of salt pork and 1 tablespoonful of molasses. Cover with water and bake slowly six or seven hours. It is well to have the pot covered except during the last hour.

Hopping John.—Soap 1 quart of dried cowpeas over night in water enough to cover. Cook until they are tender, adding more water if necessary. Cook a pint of rice in 3 pints of water, mix the two, season with 2 tablespoonfuls of butter and 2 teaspoonfuls of salt. A little beef or pork may be added to the water in which the peas are cooked.

The bulletin, which is a contribution from the office of experiment stations, may be had on application from the Division of Publications, U. S. Department of Agriculture

CHICAGO BREWERY INDUSTRY.

The brewing industry is an ancient one, dating back to Egypt, five thousand years ago. It appears that in that remote time the climate of Egypt was inhospitable to grape culture, and therefore barley was malted and, with the addition of bitter herbs, brewed into beer; the growing of hops later superseded the use of bitter herbs, as hops have an aromatic flavor not possessed by any other plant.

Beer has been the favorite beverage of all the industrious and progressive nations in modern times. The early Chicagoans supported many small ale breweries. In 1833 William Lill, financed by William B. Ogden (the first mayor of Chicago), established an ale brewery at Chicago avenue and the lake shore, the output of which during its first year of operation was 450 barrels. James Kearney conducted a brewery on South Water street, near Franklin street, from 1840 to 1855, when he leased the property to John O'Neill, who ran the plant until the beginning of the Civil War.

John A. Huck erected the first lager beer brewery in Chicago in 1847 at Rush street and Chicago avenue. Busch & Brand conducted brewing and malting on Cedar street, near the lake, in 1854 and up to the time of the great fire. Jacob Gauch also had a brewery on Indiana street, near St. Clair, in 1855 and for some years thereafter. In 1857 Fred Wacker conducted a brewery on Hinsdale street, between Rush and Pine, and afterwards at Webster avenue and Franklin street. In the late fifties H. C. Doty bottled ale and porter in the rear of his hotel on Randolph street, near State street. The late Michael Keeley bottled ale and porter at 84 (old number) Dearborn street before the Civil War, afterwards removing to Canal and Harrison streets, where soft drinks were also manufactured and bottled, until the great fire in 1871, when the plant was destroyed.

In 1860 there were twenty-two breweries in operation in Chicago. From 1867 to 1870 there were twenty-three breweries in operation in Chicago, with an annual output of 246,000 barrels (population of Chicago at this date was 252,000). In 1880 thirty-one breweries were doing business in Chicago, with sales of 518,726 barrels, to a population of 503,298. In 1885 the beer sales in Chicago were 736,866 barrels, to a population of 703,817. In 1900 the beer sales in Chicago were 3,206,758, to a population of 1,698,575. In 1905 the beer sales in Chicago were 4,233,251, to a population of 1,774,144. In 1910 the beer sales in Chicago were 5,440,267.

The consumption of malt liquors per capita in Chicago has kept pace with that of New York City, both cities being of metropolitan composition and of great manufacturing activity.

There are at present forty-three breweries in active operation in Chicago, eleven companies brewing in other states have agencies here, making a total of fifty-four brewing concerns supplying the Chicago market.

It is estimated that the bottled beer sold in Chicago amounts to 20 per cent of the total sales. As there are 300 bottles in each barrel, the number of bottles of beer consumed annually in Chicago is over 300,000,000.

The Chicago breweries directly employ 4,950 people and the money invested in the industry is conservatively estimated at $25,000,000.

Other industries indirectly benefited are cooperage, plumbing, cabinetmaking, blacksmithing, machinery of all kinds, coal, lumber and agriculture.

The brewing industry paid internal revenue taxes to the United States government in 1912, $62,176,694, and more than that amount to state and local governments for taxes and licenses.

Subdivision Committee No. 58.
Charles J. Vopicka, Chairman.
Edwin P. Dewes, Vice Chairman.
Peter S. Theurer,
James H. Regensburg,
C. G. Schumacher.

THE AMERICAN FOOD JOURNAL

VOLUME EIGHT
NUMBER TWELVE

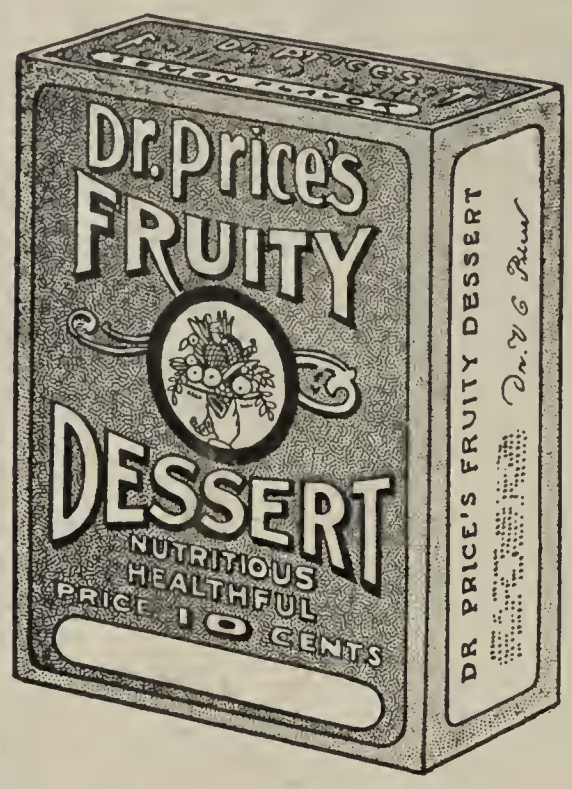
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VOLUME VIII. DECEMBER, 1913. NUMBER 12.

Food Officials Meet at the Federal Capital

ELSEWHERE in this issue will be found a complete report of the proceedings at the recent meeting of food officials at Washington, D. C. The keynote of the meeting was harmony as between the food officials of the several states and the federal pure food department.

For a number of years the necessity for harmony among food officials has been clearly recognized, and several attempts have been made to bring about this much desired end. But only a measure of success has been attained. Under the leadership of Dr. Alsberg with the hearty co-operation of President Wallis of the American Association of Food Dairy and Drug Officials the meeting last month at Washington took hold of the question in such a serious and rational manner that there can be no doubt now but what food officials of the United States will soon be working together for the common good of the people of this country.

Harmony in its best sense can only be reached and maintained by the united effort of all the food officials of the country, each being willing to lay aside his own peculiar notions and try to fall in line with the great majority. This is not altogether so simple a matter as it might appear to be for different food officials are subjected to influences that are purely local, and to break away from this is not always possible. However, it is not the purely local differences that so much disturb the world of pure food officials. It is rather the larger issues that are in fact national. The differences grow out of the great number of individual opinions in conflict one with another. If a unanimity of opinion and action can be reached on these broad issues, the purely local issues will give little trouble.

Harmony as understood at the recent meeting includes a co-operation among state and federal officials in the enforcement of the law. Each can be helpful to the other by maintaining a desirable degree of reciprocity. A higher degree of uniformity in the laws themselves, but in rulings and methods of procedure are an important part of the harmony talked about at the meeting.

The food laws are made for the people. But this does not mean that any part of the people should be made to suffer unnecessarily because of a lack of uniformity in the food laws. Manufacturers complain that the great lack of uniformity in the laws and rulings puts them to serious expense and trouble. If the various state food officials would work for harmony much of the conflict at present complained of might be done away with, and this without doing violence to the general good at which the laws aim.

While the opinion prevailed that co-operation among food officials and uniformity of food laws was essential to the best interests of the whole community it was clearly understood that this does not mean that officials shall relax their efforts to the end that the people may have better food. In fact it was very clearly set forth that still higher ideals should be sought and maintained throughout the country.

The work of improving the food supply of the land is comparatively young. In the few years that Federal and state food officials have been at work much good has been accomplished. But there is still much to do in the way of entering new fields. And there was a disposition shown at the meeting to broaden the work and improve conditions where a beginning has just been made.

It is likely, too, that the food commissioners will find their work more congenial in the future, since there is a general disposition on the part of pure food organizations throughout the country to hold up the commissioners' hands and co-operate with them in their work. Manufacturers of the better class are working in harmony with the food officials, for they find it to their advantage to give whatever help they can in keeping out of the market all food products that do not comply with the law.

AT THE END OF THE YEAR.

DURING the year which closes with this month a great deal of progress has been made in the food world, and it may be added that at no time during the year has there been so much desirable activity as in the closing months. Food commissioners generally have been standing for higher ideals and enforcing the law.

Fortunately for the food control officials, the public is giving them better support at this time than ever before, and by the public is meant manufacturer, distributor and consumer, as well as local health departments.

It has taken the consuming public a long time to wake up to the necessity of helping food officials enforce the law. They have complained in the past about impure foods, but more recently there have been organized associations whose purpose it is to give aid to food officials in an organized way. Moreover, the food officials have been able to reach the people through these various associations and so make them better acquainted with the purpose of the food laws, and arouse them to action.

Manufacturers of the better class are doing all they can to support the food officials of the country. They have learned that it is to their interest to assist in keeping out of the market adulterated foodstuffs offered in competition with their own goods.

Distributors find that it is to their advantage to put out goods that will satisfy the pure food laws, and they have learned that it is not worth while to send out into the commercial world food products that will not answer the requirements of the pure food laws. And the consumer has come to realize that it is not necessary to purchase food products that do not comply with the law, and that when such products are forced upon them they have their remedy.

And so the food commissions and their officials are having at the end of the year a comparatively easy time in carrying out the work which they were appointed to look after.

Of course we still have a few commissioners who appear to believe that their job demands that they shall get the big headlines and exclamation points. Food commissioners of this type, which fortunately are few, do much to bring the honest work of their fellows into disrepute. The commissioners who are content to go about their business in a quiet way suffer from the dramatic work of those who appear to regard their office as a means of boosting themselves. But that does not matter, the conscientious men who believe it is their duty to try and furnish the public pure food, are in the great majority, and sooner or later their influence will dominate the world of food officials.

What is particularly noticeable at this time is that as the year has gone on there has been a growing disposition on the part of the food commissioners to have due regard for the other side of the case. That is to say, the food officials are willing to concede that the manufacturer has rights that should be respected. Or to put it in other words, there is not as much desire today to prosecute irrespective of the manufacturers and distributors' rights as there was. The commissioners at this time are more concerned with working to the end that their states shall have pure food than they are to show how many cases they can win in court during the year.

DAIRYMEN COMPLAIN.

FROM every section of the country the complaint is made by the dairymen that they can no longer sell milk at the ruling prices and meet the requirements of the pure food laws. If the dairyman's story is true, why the public will be obliged to pay more for milk. In any event, the day of filthy milk in this country is fast passing. The rising generation is determined to have better milk than was furnished their parents, even though the price is raised.

There appears to be no good reason why milk produced in accordance with the modern pure food rulings should not fetch a better price, because the milk is worth more in the first place, and because it costs more to produce milk that will pass inspection.

However, the increased cost that might be proper for a time should not become permanent. So soon as the dairymen bring their plants and cattle and methods of handling milk up to the required standard, the cost of maintaining the standard of excellence demanded will be but a trifle more than the cost under the old loose method of conducting a dairy.

A dairyman said recently he would have to go out of the business of producing milk because it would cost him too much to make the changes required to meet the demands of the officials. This man said: "I've been selling milk for twenty years, and no one has found fault with my cows, my barn, or my methods of handling milk until recently. Now I am asked to dispose of my cattle because they are tubercular; I am asked to tear down my barn, build a new milk house and go to a lot of other expense. I can't afford to make all these changes, so I have concluded to give up my dairy business."

Of course this man, like many another man who has been furnishing milk to the consumer, has not the equipment to meet the requirements of the law, and rather than make the outlay necessary to get within the law, he finds it better to quit the dairy business.

The increased cost of milk that is to be expected will come as a result of the outlay necessary in the beginning to produce better milk. Once healthy cows are placed in a sanitary barn, and a suitable milk house is built, the cost of producing milk will not be materially increased. But for the present, and until such time as the dairy establishments are put in shape to produce good milk, the dairyman is going to find it necessary to add to his selling price. The consumer must expect this. In time a lower level of prices may be reached.

Unfortunately there are among the consumers of the country a sufficient number who are constantly crying out against the high prices of food products on the one hand and scolding on the other because someone does not see to it that the quality of our food products is raised. They will not learn that an improvement in quality involves a greater cost of production.

In other days when almost any kind of milk from any sort of cows passed muster there was a lot of cost avoided that cannot be escaped today. Milk must be properly cooled now and so handled generally that it will keep. A few years ago the keeping problem did not bother the dairyman much. He used preservatives to keep his milk from spoiling. Today the use of preservatives is not allowed.

TRYING TO LOWER FOOD PRICES.

WASHINGTON officials purpose to take a good look into the cold storage business of the country with the very good intention of learning some things upon which legislation may be predicated, looking to a lower cost of living.

Food stuffs club and climb. At each substantial advance the people become alarmed and this alarm is reflected upon the absorbing minds of legislators, who would seek relief through legislation. One thing after another has been investigated for the purpose of finding the cause of high food prices and a remedy. Now it is suspected cold storage bears its part of the fault. Hence an investigation is afoot. Soon we will know from the investigators much of cold storage that we do not know now. Some good let us hope will be accomplished. But at the same time let us be prepared for a still higher range of prices for food products.

It was a powerful argument in favor of parcels post that prices of food stuffs would be lowered as a result of the operation of the parcels post law. To some the problem looked easy. The farmer and the consumer would be put in intimate and economical touch through the new use of the mail service. The middle man and other distributing agencies would have little cause to exist. The farmer would be benefited, the consumer would be benefited and many people would thus be made happy. Fresh vegetables! fresh eggs! fresh poultry! all direct from farmer to consumer at a low price! This was the cheerful song of the parcels post enthusiasts. Now after a fair trial of this fair sounding plan learn from Postmaster Campbell how it has worked. He says:

"The amount of food products that are shipped from the agricultural districts by parcel post are to be hardly worth considering. Occasionally a turkey, a few chickens, a carton of eggs or a basket of grapes comes through the mail. Only a few, however. The parcel post has not operated to reduce the cost of living.

"A complete reorganization of the service would be necessary to bring about the changes outlined," said the postmaster. "It is true that the friends of the parcel post argued that it would allow the people in cities to get farm products fresh from the agricultural districts, would cut out the middleman, make more money for the farmers and cut down the high cost of living for the consumers. That has not been brought about. The farmers themselves do not appear to be clamoring for the parcel post in the handling of their products and my personal experience is that they are content with present methods of shipment.

The farmer, in order to play his part, as it has been outlined for him must go into the retail business. He must build up and maintain a trade, just as other retailers do. When he goes into the retail business he will no longer be an out and out farmer. He prefers the old method of raising a crop and disposing of it in large quantities, leaving the distribution to the consumer to those who make that work a business.

Our cold storage business may need federal regulation but it is doubtful if food values can be made by legislation. If some one can find a good way to reduce the value of our farm land, the price of food products will be lowered as a matter of course. But land values are not going down either automatically or by the legislative process. The land is worth the money and it will bring its value on the market, and as land advances and consuming demand increases the price of food products will rise.

STARTS A CAMPAIGN OF EDUCATION.

FOOD Commissioner J. Scott Mathews of Illinois, made a strong bid for the support of the women of his state at a recent meeting of the Illinois Federation of Women Clubs. Incidentally he disclosed an important part of his official policy. Commissioner Mathews has great faith in his educational policy and has entered upon a campaign of appealing to the reason of the women of the state, hoping to convince them of the necessity of their co-operation in providing pure food for the home.

At the meeting referred to, which was held at Evanston, Commissioner Mathews made it very plain that he had a well conceived plan which he expected to carry out.

"I want the co-operation of the women's clubs in my work of food inspection," he said. "I have only twelve inspectors to cover the whole state, and the woman's organizations can materially help in seeing that the pure food laws are enforced. If any of the women see any conditions which need righting, I want them to let me know about it.

"Another way the women can help is by co-operation with the inspectors. When the inspectors arrive in a town they may give a grocer or baker a number of changes which must be made in his store. He will leave the town then, for perhaps six months. If he can give the same list to the chairman of the pure food committee of the Woman's club, she can see that the required changes are made.

"My policy is more one of education than of prosecution. If a dealer will not obey the law, however, I will prosecute him."

Commissioner Mathews does not intend to confine his campaign of education to a presentation of his case to the woman's organizations, but proposes to interest the public school boards of the state.

"I want to get the teachers in the public schools," he said, "to give certain days each term to teaching the essentials of the pure food law to the children. If we can get the woman and the children interested we will get results."

In furtherance of his campaign among the schools of the state, the commissioner announced he would have a competition of public school pupils. All the school children will be given a chance to write papers on the best means of promoting a better understanding of the food laws.

Commissioner Mathews is applying a modern method that has been proven successful in other fields of endeavor. He realizes that the people generally are well disposed but are not as well advised as they should be.

The educational method of doing things is the modern way as distinguished from the old plan of mere force. More people will help uphold the law when they understand the importance of doing so. Commissioner Mathews' conception of his position is that it is his first duty to make the law popular through educational methods. Those who refuse to be educated will have to take the consequences of their folly.

HEALTH Commissioner F. A. Kraft of Milwaukee declares that 10 per cent of the cattle killed in Milwaukee are tubercular, and 3 per cent of all hogs show signs of tuberculosis. The commissioner insists that Milwaukee is greatly in need of better meat inspection, and a central slaughter house properly equipped for giving good service.

Conference of State and National Food Officials

MEETING HELD AT WASHINGTON, D. C., NOVEMBER 14-15

MORNING SESSION—NOVEMBER 14.

THE meeting was called to order at 10 a. m. by Dr. C. L. Alsberg, Chief of the Bureau of Chemistry.

Dr. Alsberg briefly outlined the attitude of the Department of Agriculture in regard to co-operation with the State authorities and the steps which have already been taken to bring about such co-operation, and stated that the present conference was called for the purpose of discussing ways and means of improving and extending this co-operative work. He then requested Mr. James H. Wallis of Idaho, President of the American Association of Food, Dairy and Drug Officials, to take the chair.

Dr. Alsberg then raised the question as to whether a full and complete stenographic report of the proceedings should be taken, and, for the purpose of getting the question before the meeting, made the motion that no record be kept. This motion was carried without opposition. Dr. Wyatt W. Randall of Maryland was elected secretary of the conference.

A few moments later, after Dr. S. J. Crumbine of Kansas had emphasized the need of some form of clearing house for information of value to State officials, Mr. Frank A. Jackson of Rhode Island moved that the proceedings be recorded in full and that the same be regarded as strictly confidential and one copy only sent to each State food and drug commissioner. This motion was unanimously adopted.

The suggestion of Dr. Crumbine regarding the need of a central clearing house in the Department of Agriculture for the dissemination of information of value to State officials was discussed and amplified by Messrs. Ladd of North Dakota, Caspari of Maryland, Emery of Wisconsin, Alsberg of the Bureau of Chemistry, and Abbott of Texas. The following suggestions regarding information which would assist the State authorities were made:

The Department should notify the various State officials of every violation of the Federal law found within that State. There should be a closer co-operation between the various States themselves to bring about dissemination of information. This could best be done through a central office or clearing house located in the Department of Agriculture in charge of one man who should devote his time to that work. The results of investigations and copies of analyses of products made under the State laws should be sent to the central clearing house at Washington for dissemination among the various State officials. It was suggested that it might be possible for State officials to send in to Washington an outline of the work proposed for the next thirty or sixty days so that any information available along these lines might be forwarded for the use of the State official in question.

The subject of co-operation in meat inspection was discussed by Dr. A. D. Melvin, Chief of the Bureau of Animal Industry. The need of adequate municipal inspection as an aid to State and Federal inspection was strongly emphasized. Dr. Melvin also submitted a tabular statement of the nature of the meat inspection in force in the various States. This report is given in full in the proceedings of the meeting. The workings of the municipal abattoir at Paris, Texas, were described by Mr. Abbott of Texas.

AFTERNOON SESSION—NOVEMBER 14.

The meeting convened at 2:15 p. m. with Mr. Wallis in the chair.

The report of the Committee on Co-operation, issued by the Office of the Secretary of Agriculture under date of May 22, 1913, was taken up. The various recommendations, beginning with paragraph 2 on page 2 of that circular, were taken up one by one. Paragraphs 2, 4, 6, 7 and 8 were adopted without discussion. Paragraphs 3 and 5, after discussion, were referred to the Committee on Co-operation for consideration and report on the following day.

The question of the possibility of adopting uniform tentative standards for food and drug products was then taken up. The discussion was opened by Dr. Ladd, who advocated congressional action to authorize the adoption of standards and the appointment of a joint committee from the Department of Agriculture, the Association of Official Agricultural Chemists and the American Association of Food, Dairy and Drug Officials for the purpose of preparing such standards. These standards could then be adopted by the States, as far as possible, and should have the force of law. The Secretary of Agriculture or some other power, however, should have the authority to withdraw any one of these standards if it be found to work a hardship and refer it back to the committee for reconsideration. The question was further discussed by Messrs. Allen of Kentucky, Emery of Wisconsin, Haywood of the Bureau of Chemistry, Flanders of New York, Brown of Tennessee, Alsberg of the Bureau of Chemistry, Doolittle of the New York Food and Drug Inspection Laboratory, Jackson of Idaho, and Patrick of the Bureau of Chemistry.

Mr. Allen of Kentucky moved that the conference request its executive committee to select from its scientific section three members, that that body request the Association of Official Agricultural Chemists to select three members from its organization, and the Secretary of Agriculture to select three members from that department, to take up at once the question of formulating standards for immediate use pending action by the Federal Congress. The motion was carried.

The meeting adjourned at 5:10 p. m.

MORNING SESSION—NOVEMBER 15.

Mr. James H. Wallis, Food Commissioner of Idaho, and President of the American Association of Food, Dairy and Drug Officials, presiding.



JAMES H. WALLIS.

The meeting was called to order at 10 a. m.

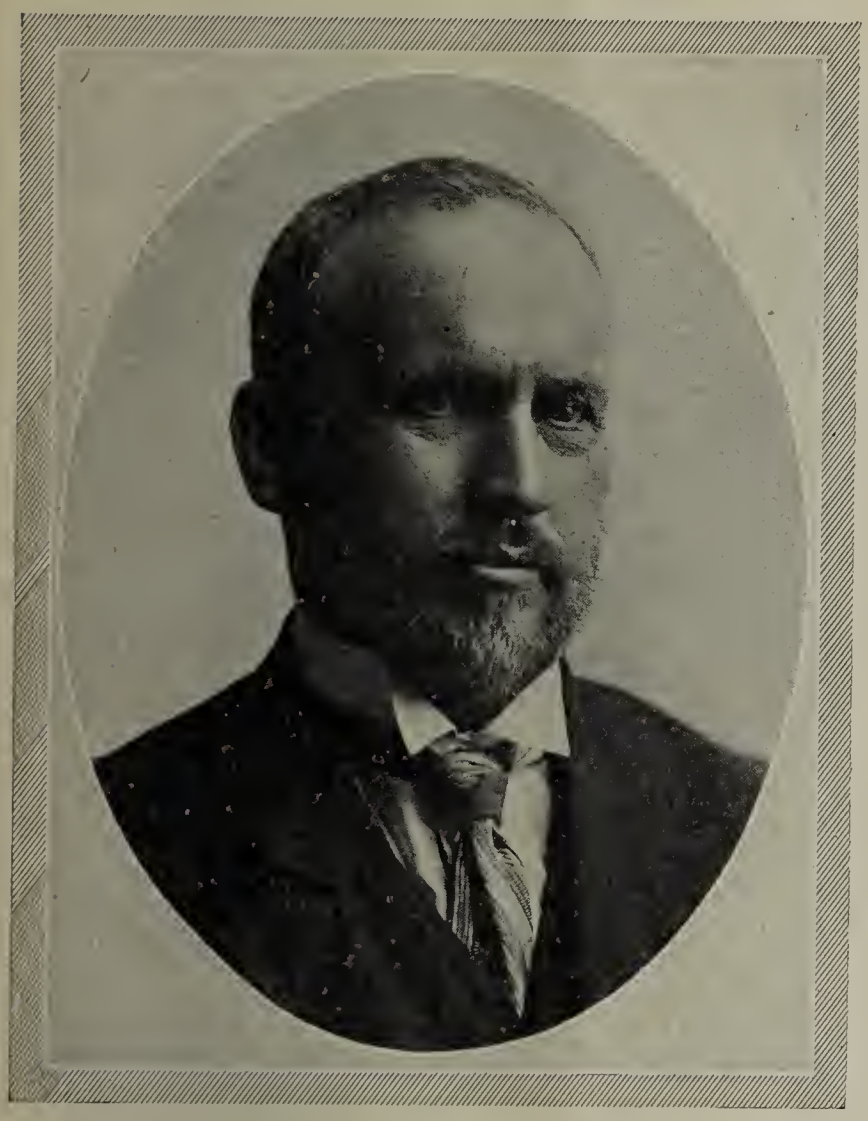
The first matter considered was a motion by Dr. Ladd of North Dakota providing that the conference appoint a committee to memorialize the President and Congress for the enactment of such legislation as is necessary to enable the Secretary of Agriculture to take up the work of the establishment of standards. This motion was carried without further discussion.

Mr. Winkjer of Minnesota moved that a committee of three be appointed by the Chair to procure the enactment of a bill similar to that introduced in the Sixtieth Congress (S. 3043)

prohibiting the use of any statement to the effect that food or drug products are guaranteed under the Food and Drugs Act. This motion was carried with the understanding that the committee appointed take up the matter with the Secretaries of the Treasury and of the Departments of Commerce and Agriculture, in order to obtain their influence in the passage of such legislation.

Mr. Frary of South Dakota offered a resolution providing for the appointment of a committee of three to wait upon the Postmaster General and request that the present United States postal rules and regulations be amended so as to allow the publications issued by State food, dairy and drug departments to enter the mails as second-class matter on the same footing as bulletins of State boards of health, State boards of charities and corrections and institutions of learning. Mr. Frary's resolution was adopted without opposition.

The conference then proceeded to the discussion of the third topic suggested by the Department, namely, "Features of the National and State Laws which are now at variance and changes which will harmonize them so as to produce the most satisfactory results." This subject was productive of considerable discussion, much of it hinging on the distinction be-



E. F. LADD.

tween the terms "mixtures," "compounds," "imitations" and "blends" as given in the exemptions under Section 8, paragraph 4, of the Federal Act. The meanings of the words "compound" and "mixture," as used in the United States Pharmacopoeia, were also discussed. As a result of this discussion and following a suggestion of Mr. Brown of Tennessee, a motion was put by Mr. Allen of Kentucky to the effect that it was the sense of the conference that in the Federal Food and Drugs Act, under Section 8, sub-section 4, which reads,

"Fourth. If the package containing it or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular: *Provided*, That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

"First. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food, under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

"Second. In the case of articles labeled, branded, or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the word "compound," "imitation," or "blend," as the case may be, is plainly stated on the package in which it is offered for sale: *Provided*, That the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only: *And provided further*, That nothing in this Act shall be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredient to disclose their trade formulas, except in so far as the provisions of this act may require to secure freedom from adulteration or misbranding."

the provisos be amended by Congress in order to make them more clear and that the executive committee and the President of the American Association of State Food, Dairy and Drug Officials be asked to prepare for a full discussion of these provisions at the coming convention of the Association, with a view to making representations to Congress and that the President of the Association and the executive committee appoint a sub-committee to prepare for that convention an amended draft of the law as a basis for consideration. This motion was adopted.

Following a suggestion by Mr. Taylor of Louisiana and Mr. Brown of Tennessee, a motion was made by Mr. Allen of Kentucky providing that a committee be appointed to memorialize the Senate to pass such legislation as will be necessary to effectively control interstate and foreign traffic in habit-forming drugs sofar as may lie within the power of the Federal Government; and that the individual States be requested to provide themselves with a copy of the so-called Harrison Act, now pending in the Senate, the object of which is to provide for such regulation. This motion was adopted.

At this point, the Chair announced the appointment of the following committees:

Committee to memorialize Congress for authority to take up the work of establishing standards as provided for in Dr. Ladd's resolution:

Dr. E. F. Ladd, North Dakota.
Mr. S. E. Strode, Ohio.
Mr. J. D. Mickle, Oregon.
Dr. George B. Taylor, Louisiana.
Mr. W. S. Matthews, Illinois.

Committee provided for by Mr. Winkjer's resolution to secure the passage of a bill doing away with the guaranty legend:

Mr. Joel G. Winkjer, Minnesota.
Mr. R. M. Allen, Kentucky.
Mr. Hermann C. Lythgoe, Massachusetts.

Committee to wait on the Postmaster General for the purpose of securing an extension of the postal regulations in favor of publications of State food, dairy and drug departments, as provided for in Dr. Frary's resolution:

Dr. Guy G. Frary, South Dakota.
Dr. F. A. Jackson, Rhode Island.
Mr. Maurice Groshon, Wyoming.

The report of the Committee on Co-operation of the American Association of Food, Dairy and Drug Officials was then presented by Mr. A. S. Mitchell. The report proposes certain amendments to the report originally published in the Manual of Procedure under date of May 22, 1913, and reads as follows:

"RESOLVED, That Section 3 be amended by adding to the second paragraph the following words, 'and directing the attention of each official to such violations as have originated in his State' so that this paragraph, as amended, will read:

"'We recommend that the Secretary of Agriculture be requested to send out to all collaborating officials such (confidential)* information concerning matters of general interest affecting the enforcement of the National Food and Drugs Act as may be of assistance to the collaborating officials in the performance of their duties and directing the attention of each official to such violations as have originated in his State.'

"RESOLVED, That an office be established in the United States Department of Agriculture to serve as a clearing house and to carry into practical effect the spirit of co-operation as expressed in the previous reports of the Committee on Co-operation.

"RESOLVED, That, in those States where the laws will permit, United States inspectors be authorized on request of collaborating State officials to collect for them samples of articles sold in intrastate commerce which appear to be in violation of the laws of the State in which they are found, the cost of such samples to be paid by the States for which the samples are collected.

"The procedure outlined in the previous reports of the Committee on Co-operation as respects criminal cases is intended to apply to criminal prosecutions which the Commission's State official desires to have instituted outside of his own State.

"RESOLVED, That whenever a commissioned State official discovers a violation of the Food and Drugs Act which can be prosecuted criminally in the Federal court within his own State, that the commissioned State official make his report direct to the United States Attorney and at the same time furnish a copy of the report to the Chief of the Bureau of Chemistry."

Signed S. J. CRUMBINE,
J. S. ABBOTT,
A. S. MITCHELL,
C. L. ALSBERG.

*Word "confidential" eliminated in report as finally adopted.

At this point the Assistant Secretary of Agriculture, Dr. Galloway, entered the room and addressed a few words of greeting to the conference, offering the hearty support of the Department in the work of co-operation.



J. S. ABBOTT.

The report of the Committee on Co-operation was then taken up, section by section, and was adopted in full, with the exception of the elimination of the word "confidential" in the first resolution.

Messrs. Tolman and Bates of the Bureau of Chemistry then gave an outline of the work which the Bureau is trying to do to improve the interstate shipping conditions of milk at various points and asked for the co-operation of states and cities with the Bureau authorities.

Mr. Brown of Tennessee offered the following resolution:

Resolved, That the committee on recommendations for changes in laws authorized under the resolution of R. M. Allen heretofore passed, be instructed that it is the sense of this conference that the rubric tests of the U. S. P. are at present defective, thereby defeating the object of the Food and Drug laws in many instances.

Resolved further, That said committee be requested to examine into the matter of drug standards with a view to ascertainng whether it is possible to so change the law that definitions and not tests shall govern same.

Dr. Caspari of Maryland offered an amendment changing the last clause of this resolution to read "that both definitions and tests shall govern the same." The amendment was accepted and the resolution passed in the amended form.

The conference then adjourned sine die.

President Wallis appointed the following committee on standards:

Dr. E. F. Ladd, North Dakota.
J. S. Abbott, Texas.
W. F. Hand, Mississipi.
James H. Wallis, Idaho.
S. E. Strode, Ohio.

LIST OF PERSONS IN ATTENDANCE.

1. C. L. Alsberg, Bureau of Chemistry.
2. L. M. Tolman, Bureau of Chemistry.
3. H. P. Jones, Office of Solicitor.
4. Frank A. Jackson, Woonsocket, Rhode Island.
5. H. Louis Jackson, Boise, Idaho.
6. P. B. Dunbar, Bureau of Chemistry.
7. A. S. Mitchell, Bureau of Chemistry.
8. Herbert S. Bailey, Bureau of Chemistry.
9. C. L. Black, Bureau of Chemistry.
10. W. S. Matthews, Chicago, Illinois.
11. E. F. Ladd, Fargo, North Dakota.
12. R. P. Steddom, Bureau of Animal Industry.
13. R. M. Allen, Lexington, Kentucky.
14. Ross B. Moudy, Laramie, Wyoming.
15. A. W. Bromell, Bureau of Chemistry.
16. B. H. Stone, Burlington, Vermont.
17. Carleton Bates, Bureau of Chemistry.
18. H. E. Bishop, Indianapolis, Indiana.
19. William H. Chew, Camden, New Jersey.
20. B. B. Fitz-Randolph, Trenton, New Jersey.
21. William G. Tice, Trenton, New Jersey.
22. Geo. W. McGuire, Trenton, New Jersey.
23. Chas. D. Howard, Concord, New Hampshire.
24. R. del Valle Sarraga, Porto Rico.
25. W. F. Hand, Agricultural College, Mississippi.
26. S. J. Crumbine, Topeka, Kansas.
27. C. H. Billingsley, Montgomery, Alabama.
28. Willard Hansen, Salt Lake City, Utah.
29. J. Q. Emery, Madison, Wisconsin.
30. Guy G. Frary, Vermilion, South Dakota.
31. J. W. Marden, Vermilion, South Dakota.
32. Maurice Groshon, Cheyenne, Wyoming.
33. L. A. Rogers, Bureau of Animal Industry.
34 Chas. F. Dalton, Burlington, Vermont.
35. W. G. Campbell, Bureau of Chemistry.
36. Geo. H. Adams, Bureau of Chemistry.
37. H. M. Loomis, Bureau of Chemistry.
38. J. K. Haywood, Bureau of Chemistry.
39. John McCabe, St. Paul, Minnesota.
40. M. I. Wilbert, Hygienic Laboratory.
41. Hermann C. Lythgoe, Boston, Massachusetts.
42. James H. Wallis, Boise, Idaho.
43. L. B. Cook, Bureau of Animal Industry.
44. S. H. Ayers, Bureau of Animal Industry.
45. B. R. Hart, Chief, Cincinnati Laboratory, Cincinnati, Ohio.
46. Arthur L. Sullivan, Chief Boston Laboratory, Boston, Mass.
47. Joel G. Winkjer, St. Paul, Minnesota.
48. Sanford C. Dinsmore, Reno, Nevada.
49. Carl Vaughn, Hygienic Laborary.
50. F. H. Fricke, St. Louis, Missouri.
51. J. A. LeClerc, Bureau of Chemistry.
52. G. L. Bidwell, Bureau of Chemistry.
53. J. B. Reed, Bureau of Chemistry.
54. Geo. P. Walton, Bureau of Chemistry.
55. P. M. Harwood, Boston, Massachusetts.
56. William E. Hillyer, Bureau of Chemistry.
57. A. J. Pistor, Bureau of Animal Industry.
58. M. Dorset, Bureau of Animal Industry.
59. A. M. Farrington, Bureau of Animal Industry.
60. W. W. Skinner, Bureau of Chemistry.
61. E. K. Nelson, Bureau of Chemistry.
62. Martin Boyle, Bureau of Chemistry.
63. B. B. Wilcox, Bureau of Chemistry.

64. E. J. Watson, Columbia, South Carolina.
65. R. E. Doolittle, Chief New York Laboratory, New York City.
66. S. E. Strode, Columbus, Ohio.
67. W. B. D. Penniman, Baltimore, Maryland.
68. Chas. Caspari, Jr., Baltimore, Maryland.
69. C. E. Parker, Bureau of Chemistry.
70. Benjamin R. Jacobs, Bureau of Chemistry.
71. J. K. Chesnut, Bureau of Chemistry.
72. F. B. Linton, Bureau of Chemistry.
73. Wyatt W. Randall, Baltimore, Maryland.
74. George Ditewig, Bureau Animal Industry.
75. John R. Mohler, Bureau of Animal Industry.
76. Ruth C. Greathouse, Bureau of Chemistry.
77. Maud L. Mason, Bureau of Chemistry.
78. E. H. Grant, Bureau of Chemistry.
79. William C. Woodward, Health Department, Washington, D. C.
80. Ernest Kelly, Bureau of Animal Industry.
81. P. F. Trowbridge, Columbia, Missouri.
82. H. H. Hanson, Orono, Maine.
83. G. L. Flanders, Albany, New York.



W. F. HAND.

87. Chas. H. Stephenson, Bureau of Chemistry.
88. Geo. L. Keenan, Bureau of Chemistry.
89. Geo. E. Patrick, Bureau of Chemistry.
84. W. D. Collins, Bureau of Chemistry.
85. J. Walter Sale, Bureau of Chemistry.
86. Walter F. Baughman, Bureau of Chemistry.
90. B. H. Silberberg, Bureau of Chemistry.
91. H. Sherman, Bureau of Chemistry.
92. W. C. Taber, Bureau of Chemistry.
93. T. C. Trescot, Bureau of Chemistry.
94. G. W. Wharton, Office of Information, Dept. Agriculture.
95. M. N. Anderson, Office of Information, Dept. Agriculture.
96. L. F. Kebler, Bureau of Chemistry.
97. George W. Hoover, Bureau of Chemistry.
98. W. M. Allen, Raleigh, North Carolina.
99. J. D. Mickle, Portland, Oregon.
100. J. S. Abbott, Austin, Texas.
101. S. Palkin, Bureau of Chemistry.
102. Clare C. Ewing, Bureau of Chemistry.
103. John T. Keister, Bureau of Chemistry.
104. George B. Taylor, New Orleans, Louisiana.
105. W. J. McGee, New Orleans, Louisiana.
106. J. E. Bennett, Bureau of Animal Industry.
107. A. D. Melvin, Bureau of Animal Industry.
108. William B. Dodge, Health Department, Washington, D. C.
109. Aida M. Doyle, Bureau of Chemistry.
110. N. Warder, Bureau of Chemistry.
111. E. A. Read, Bureau of Chemistry.
112. C. M. Davis, Bureau of Chemistry.
113. H. L. Weseling, Bureau of Chemistry.
114. Katherine A. Smith, Bureau of Chemistry.
115. N. Hendrickson, Philadelphia, Pennsylvania.
116. B. J. Howard, Bureau of Chemistry.
117. A. C. Summers, Columbia, South Carolina.
118. Lucius P. Brown, Nashville, Tennessee.
119. Edwin LeFevre, Bureau of Chemistry.
120. Daniel R. Forbes, Bureau of Chemistry.
121. Mrs. W. R. Johnston, Bureau of Chemistry.
122. Franz F. Exner, Bureau of Chemistry.
123. P. H. Waldraff, Bureau of Chemistry.
124. John R. Bowie, Office of Information, Dept. Agriculture.
125. C. H. Biesterfeld, Bureau of Chemistry.
126. Julius Hortvet, St. Paul, Minnesota.
127. W. O. Emery, Bureau of Chemistry.
128. Wm. D. Saunders, Richmond, Va. (taken out).

After the conference the executive committee of the American Association of Food, Dairy and Drug officials met at the Hotel Raleigh, and fixed the date of the eighteenth annual convention for next year at Kineo, Maine, during the week beginning July 15.

THE GUARANTY CLAUSE.

On Monday, November 17, Congressman Mann, of Illinois, asked unanimous consent to address the House for five minutes on the pure food law. There being no objection, Congressman Mann took the floor and said:

I read from an item in one of the local papers that:

Repeal of the present pure food law, with its misleading guaranty label will be urged upon Congress by a committee of state and federal food and drug officials.

A similar item has been transmitted quite generally throughout the country in the press. I do not know whether this is an error of the reporter who prepared the item or not, although I presume that is the case. It is proper to say that the guaranty label provision which goes on articles in the form of "guaranteed under the food and drugs act" is not a provision of the pure food law. It is a regulation made by the department officers who have charge of the matter and was never contemplated by the authors of the law or by anyone in Congress when the pure food law was passed. There is a provision for a guaranty to the effect that the manufacturer of articles covered by the pure food law may give a guaranty to the wholesaler or jobber to whom he sells, and the jobber or wholesaler may give a guarantee to the retailer to whom he sells that the goods comply with the pure food law and that in such case that retailer is not to be prosecuted for a violation of the law, but that the prosecution shall relate back to the person who gave the guarantee. The department officers or the three secretaries, in making their regulations, provided for the manufacturer or wholesaler filing with the department a guarantee and then placing upon the goods the provision "guaranteed under the food and drugs act." Many people have supposed that that meant that the goods were guaranteed by the government. That, of course, is not the case. Personally, I have always been opposed to that form of label and introduced a bill and endeavored to push it to do away with that, meeting objection on the part of the department of agriculture or some of its officials.

If it is to be corrected it does not need an act of Congress, being a mere regulation, and the idea that is cast by this article, and by others of the same kind, to the effect that the trouble was in the act of Congress, is misleading and unfair to gentlemen in Congress, both now and in the past. Or in other wrods the guarantee clause about which so much comment has been made, is not a part of the law, but is a ruling of the department.

Agricultural Chemists Convene

The thirtieth annual convention of the Association of Official Agricultural Chemists was held at the Hotel Raleigh, Washington, D. C., November 17-19.

Following is a list of officers and referees elected for the ensuing year:

Honorary President, H. W. Wiley, Washington, D. C.; President, E. F. Ladd, Fargo, N. Dak.; Vice-President, C. H. Jones, Burlington, Vt.; Secretary, C. L. Alsberg, Washington, D. C.

Additional members of the Executive Committee: J. D. Turner, Lexington, Ky.; W. F. Hand, Agricultural College, Miss.

Referees: Phosphoric acid: A. J. Patten, East Lansing, Mich. (second year).

Determination of nitrogen: R. N. Brackett, Clemson College, S. C. (first year).

Separation of nitrogenous bodies: A. W. Bosworth, Geneva, N. Y. (first year).

Potash: E. E. Vanatta, Columbia, Me. (first year).

Soils: J. K. Plummer, Raleigh, N. C. (first year).

Dairy Products: L. I. Nurenberg, Boston, Mass. (first year).

Foods and Feeding Stuffs: G. L. Bidwell, Washington, D. C. (first year).

Food Adulteration: Julius Hertvet, St. Paul, Minn. (second year).

Sugar: W. E. Cross, Audubon Park, New Orleans, La. (third year).

Tannin: C. B. Bacon, Washington, D. C. (second year).

Insecticides: W. B. Ellett, Blacksburg, Vt. (first year).

Inorganic Plant Constituents: B. E. Curry, Durham, N. H. (first year).

Medicinal Plants and Drugs: H. A. Seil, U. S. Appraiser's Stores, New York, N. Y. (second year).

Water: W. W. Skinner, Washington, D. C. (fourth year).

Testing Chemical Reagents: J. B. Rather, College Station, Texas. (second year).

Associate Referees.

Phosphoric Acid: L. S. Walker, Amherst, Mass. (second year).

Determination of Nitrogen: H. D. Haskins, Amherst, Mass. (first year).

Special Study of Kjeldahl Method: I. K. Phelps, Washington, D. C. (new subject, first year).

Separation of Nitrogenous Substances:

Milk and Cheese: O. B. Winter, E. Lansing, Mich. (second year).

Vegetables Proteins: T. B. Osborne, New Haven, Conn. (third year).

Meat Proteins: A. D. Emmett, Urbana, Ill. (second year).

Potash:

Determination: B. F. Robertson, Clemson College, S. C. (second year).

Availability: E. E. Vanatta, Columbia, Mo. (third year).

Soils: J. W. Ames, Wooster, Ohio (first year).

Nitrogenous Compounds: Oswald Schreiner, Bureau of Soils, Washington, D. C. (first year).

Alkali Soils: R. F. Hare, State College, N. Mexico (added this year).

Dairy Products: W. M. Clark, Washington, D. C. (first year).

Feeds and Feeding Stuffs: A. C. Summers, Columbia, S. C. (first year).

Feed Adulteration: Carlton Cutler, W. Lafayette, Ind. (new subject, first year).

Food Adulteration:

Colors: W. E. Mathewson, New York, N. Y. (third year).

Saccharine Products: F. L. Shannon, Lansing, Mich. (first year).

Fruit Products: H. C. Gore, Washington, D. C. (third year).

Wine: B. C. Hartmann, Washington, D. C. (second year).

Beer: J. G. Riley, Washington, D. C. (second year).

Distilled Liquors: A. B. Adams, Washington, D. C. (second year).

Vinegar: E. H. Goodnow, Washington, D. C. (second year).

Flavoring Extracts: A. E. Paul, 1607 Transportation Bldg., Chicago, Ill. (second year).

Spices: H. E. Barnard, Indianapolis, Ind. (second year).

Baking Powder: R. E. Remington, Fargo, N. Dak. (first year).

Meat and Fish: H. S. Grindley, Urbana, Ill. (first year).

Fats and Oils: R. H. Kerr, Washington, D. C. (second year).

Dairy Products: Julius Hertvet, St. Paul, Minn. (second year).

Cereal Products: B. R. Jacobs, Washington, D. C. (first year).

Vegetables: E. W. Magruder, Richmond, Va. (second year).

Cocoa and Cocoa Products: H. C. Lythgoe, Boston, Mass. (second year).

Tea and Coffee: J. M. Bartlett, Orono, Me. (second year).

Preservatives: A. F. Seeker, New York, N. Y. (second year).

Water in Foods: W. J. McGee, New Orleans, La. (second year).

Organic and Inorganic Phosphorus in Foods: E. B. Forbes, Wooster, Ohio (third year).

Heavy Metals in Foods: H. M. Loomis, Washington, D. C. (third year).

Sugar: M. N. Straughn, Washington, D. C. (third year).

Insecticides: O. B. Winter, E. Lansing, Mich. (first year).

Medicinal Plants and Drugs:

Synthetic Products: W. O. Emery, Washington, D. C. (fourth year).

Medicated Soft Drinks: W. F. Sudro, Fargo, N. Dak. (first year).

Medicinal Plants: Frank Rabak, Washington, D. C. (first year).

Alkaloids: H. Buchbinder, Washington, D. C. (new subject this year).

Balsams and Gum Resins: E. C. Merrill, Washington, D. C. (new subject this year).

Water: H. P. Carson, Urbana, Ill. (first year).

Tannin: F. P. Veitch, Washington, D. C. (second year).

Inorganic Plant Constituents: R. W. Thatcher, St. Paul, Minn. (first year).

Testing Chemical Reagents: W. F. Hillebrand, Washington, D. C. (first year).

Standards: to co-operate with state food standards committee: William Frear, State Chemist, State College, Pennsylvania; Julius Hortvet, State Chemist, Minnesota; John Phillips Street, State Chemist, New Haven, Conn.

ATTENDANCE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.

Adams, A. B., Treasury Dept., Washington, D. C.; Adams, A. C., Md. Agr. College, College Park, Md.; Adams, Geo. M., 88 Broad Street, Boston, Mass.; Albright, A. R., Bureau of Chemistry, Washington, D. C.; Allen, W. M., Department of Agriculture, Raleigh, N. C.; Almy, L. H., Bureau of Chemistry, Washington, D. C.; Alsberg, Carl L., Bureau of Chemistry, Washington, D. C.; Ames, John W., Expt. Station, Wooster, Ohio; Andrews, L. W., Bureau of Chemistry, Washington, D. C.; Averitt, S. D., Expt. Station, Lexington, Ky.

Bacon, Chas. B., Bureau of Chemistry, Washington, D. C.; Bailey, E. M., Drawer 1, New Haven, Conn.; Bailey, H. S., Bureau of Chemistery, Washington, D. C.; Bailey, L. H., Bureau of Chemistry, Washington, D. C.; Baker, E. L., Expt. Station, Geneva, N. Y.; Baker, H. A., 52 East 41st Street, New York, N. Y.; Balls, A. K., Bureau of Chemistry, Washington, D. C.; Barr, Jas. A., Exposition Building, San Francisco, Calif.; Bartlett, G. M., Jos. Campbell Co., Camden, N. J.; Bartlett, J. M., Expt. Station, Orono, Me.; Bartow, Edward, State Water Survey, Urbana, Ill.; Bates, Castleton, Bureau of Chemistry, Washington, D. C.; Baughman, W. F., Bureau of Chemistry, Washington, D. C.; Beyer, G. F., Bureau of Internal Revenue, Washington, D. C.; Bidwell, G. L., Bureau of Chemistry, Washington, D. C.; Biester-

feld, C. H., Bureau of Chemistry, Washington, D. C.; Bigelow, W. D., National Canner's Association, Washington, D. C.; Billings, G. A., U. S. Dept. of Agriculture, Washington, D. C.; Bisbee, D. B., Old Custom House, St. Louis, Mo.; Bishop, H. E., State Board of Health, Indianapolis, Ind.; Bitting, A. W., National Canners' Association, Washington, D. C.; Bitting, Katherine G., National Canners' Association, Washington, D. C.; Black, C. L., Bureau of Chemistry, Washington, D. C.; Blair, A. W., Expt. Station, New Brunswick, N. J.; Blum, Wm., Bureau of Standards, Washington, D. C.; Boughton, E. W., Bureau of Chemistry, Washington, D. C.; Bower, John H., Bureau of Chemistry, Washington, D. C.; Boyle, Martin, Bureau of Chemistry, Washington, D. C.; Boyles, Frank M., care McCormick & Co., Baltimore, Md.; Bruckett. R. N., Clemson College, S. C.; Breckenridge, J. E., American Agricultural Chemical Co., Carteret, N. J.; Broeman, F. C., 215 East 4th Street, Cincinnati, Ohio.; Broomell, A. W., Bureau of Chemistry, Washington, D. C.; Broughton, T. B., College Park, Md.; Brown, B. E., Bureau of Soils, Washington, D. C.; Brown, L. P., Food and Drug Inspection Department, Nashville, Tenn.; Browne, C. A., New York Sugar Trade Lab., 80 South Street, New York, N. Y.; Bryan, T. J., Calumet Baking Powder Co., 201 East Ohio Street, Chicago, Ill.; Bushbinder, H. E., Bureau of Chemistry, Washington, D. C.; Burnett, L. B., Bureau of Chemistry, Washington, D. C.

Cameron, Frank K., Bureau of Soils, Washington, D. C.; Campbell, C. H., Dept. of Public Health, Pittsburgh, Pa.; Campbell, W. G., Bureau of Chemistry, Washington, D. C.; Carpenter, F. B., Virginia-Carolina Chemical Co., Richmond, Va.; Carroll, John L., German Kali Works, Atlanta, Ga.; Cathcart, Charles S., Agricultural Experiment Station, New Brunswick, N. J.; Chesnut, V. K., Bureau of Chemistry, Washington, D. C.; Child, E., Eimer & Amend, New York City; Clark, Ernest D., Bureau of Chemistery, Washington, D. C.; Cochrane, Lee, Los Angeles, Cal.; Collins, W. D., Bureau of Chemistry, Washington, D. C.; Coopersmith, S., Bureau of Chemistry, Washington, D. C.; Crampton, C. A., Institute of Industrial Research, Washington, D. C.; Cross, L. J., Morse Hall, Ithaca, N. Y.; Crumbine, S. J., State Board of Health, Topeka, Kansas; Cusick, J. T., Dairy Building, Ithaca, N. Y.; Custis, Horace H., Bureau of Animal Industry, Washington, D. C.

Daudt, H. W., Bureau of Chemistry, Washington, D. C.; Davidson, R. J., Blacksburg, Va.; Davison, J., Bureau of Chemistry, Washington, D. C.; Dixon, Frank E., Heekin Spice Co., Cincinnati, Ohio; Donk, M. G., Bureau of Chemistry, Washington, D. C.; Doolittle, R. E., U. S. Appraiser's Stores, New York City; Doran, James M., Bureau of Internal Revenue, Washington, D. C.; Doyle, Miss A. M., Bureau of Chemistry, Washington, D. C.; Dubois, W. L., Federal Building, Buffalo, N. Y.; Dunbar, P. B., Bureau of Chemistry, Washington, D. C.

Ellett, W. B., Agricultural Experiment Station, Blacksburg, Va.; Elliott, F. V., Bureau of Chemistry, Washington, D. C.; Emery, W. O., Bureau of Chemistry, Washington, D. C.; Eoff, John R., Room 423, Treasury Department, Washington, D. C.; Ewing, Clare O., Bureau of Chemistry, Washington, D. C.; Exner, Franz F., Bureau of Chemistry, Washington, D. C.

Feldstein, Leonard, Bureau of Chemistry, Washington, D. C.; Ferris, Dairy Laboratory, Bureau of Chemistry, Washington, D. C.; Fetzer, L. W., Office of Experiment Stations, Washington, D. C.; Fitzgerald, F. F., Nat'l Canners' Assn., 1739 H Street, Washington, D. C.; Forbest, E. B., Agricultural Experiment Station, Wooster, Ohio; Fox, Paul J., Bureau of Soils, Washington, D. C.; Fraps, G. S., Agricultural Experiment Station, College Station, Texas; Frary, Guy G., Food and Drug Commission, Vermilion, S. Dak.; Frear, William, State College, Pa.; French, D. M., Alfred Street, Alexandria, Va.; Fuller, A. V., Bureau of Animal Industry, Washington, D. C.; Fuller, H. C., Institute of Industrial Research, Washington, D. C.; Furber, Franklin B., Bureau of Chemistry, Washington, D. C.

Gibson, Arthur M., College Park, Md.; Gilespie, L. J., Bureau of Soils, Washington, D. C.; Ginsburg, Samuel, Bureau of Chemistry, Washington, D. C.; Given, G. A., State College, Pa.; Goodrich, Charles E., Bureau of Chemistry, Washington, D. C.; Gordon, W. O., U. S. Dept. of Agri., Washington, D. C.; Gore, H. C., Bureau of Chemistry, Washington, D. C.; Gowen, Philip L., Agricultural College, College Park, Md.: Graham, J. J. T., Bureau of Chemistry, Washington, D. C.; Grant, E. H., Bureau of Chemistry, Washington, D. C.; Greathouse, Miss Ruth C., Bureau of Chemistry, Washington, D. C.; Griffin, Edward L., Bureau of Chemistry, Washington, D. C.; Groff, John E., Rhode Island Hospital, Providence, R. I.

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Zerban, F. W., German Kali Works, New Orleans, La.

Yost, Paul B., Bureau of Chemistry, Washington, D. C.

UNIFORM STATE LAWS.

At the annual conference of Commissioners on Uniform Laws, held in Montreal in August last, the Committee on Purity of Articles of Commerce was directed to

"Institute such inquiries into the food and drug laws of the various states as shall determine in what respect they are incongruous and inconsistent with the National Food and Drugs Act"

A call for the body to meet November 21 and 22 in New York was made by the chairman, Walter E. Coe.

In response to the call the following appeared at the meeting:

Dr. Carl L. Alsberg, Chief of the Bureau of Chemistry.

Mrs. Samuel E. Sneath, vice-president National Federation of Women's Clubs.

Miss Helen Louise Johnson, chairman of the Home Economics Commission of the National Federation of Women's Clubs.

Mr. Clement A. Jenks, Commissioner on Uniform State Laws.

Mr. Charles M. Woodruff, Secretary and Counsel for the National Association of Manufacturers of Medicinal Products.

Mr. B. L. Murray, representing Mercke & Company.

Mr. Walter C. Clephane, Commissioner on Uniform State Laws.

Mr. Carl C. Alden, Commissioner on Purity of Articles of Commerce.

Wm. C. Woodward, President American Public Health Association and Member and Counsel of the American Medical Association.

Mr. Thomas E. Lannen, Attorney, Chicago, Ill., representing National Confectioners' Association; Flavoring Extracts Manufacturing Association of Products from Corn; National Wine Growers' Association; Maple Syrup Manufacturing Industry.

Mr. Walter Engel, Legal Department of Borden Condensed Milk Company.

Mr. Wm. H. Close, Associate Counsel of the National Canners' Association.

Mr. Frank E. Gorrell, Secretary National Canners' Association.

Mr. Wm. W. Armstrong, Rochester, N. Y., on his own behalf.

Mr. A. Cressy Morrison, Secretary American Baking Powder Association.

Mr. Alfred H. Beckman, Secretary of the National Wholesale Grocers' Association of the United States.

Mr. Dana T. Ackerly, Counsel for the National Wholesale Grocers' Association of the United States.

Dr. Carl S. Alsberg addressed the meeting on the national food laws during the first day of the meeting when the questions of foods were discussed.

On the second day the question of cold storage was considered. Dr. Mary E. Pennington of the Bureau of Chemistry made a telling address on the subject of cold storage products.

Feed Control Officials Convene

Important Gathering Held at Washington, D. C.

THE fifth annual convention of the Association of Feed Control Officials of the United States was held at Washington, D. C., Nov. 17 and 18, and was attended by a large majority of the members and by nearly half a hundred manufacturers of horse, mule, cattle and poultry feed, and others interested in the subject of feeds and feeding.

President Turner called the convention to order promptly at 10 o'clock, Nov. 17, and delivered his annual address, which was well received. Speaking of the new economic idea he said:

"Our country has entered a new economic era and profound changes are coming in the qualities and character of the people. We are at the end of our pioneer period when we could wastefully exploit our land, our forests, our minerals and our resources generally. We are beginning to see the necessity of conserving them. Expression of these changes is given by our conservation organizations, by our rapid improvement in farming, by our attention to intensive rather than extensive work in every department of activity. All these things are part and parcel of the new economic era; its signs and precursors; and they show a profund change already taking place in American life and thought and method.

"It is, therefore, a good time to have confidence not only in the essential prosperity of the country, but in one another. It is unfortunately a common thing to hear people in business speak in condemnation of men in authority of law, and similarly unfortunate that officers of the law should hold an attitude of suspicion towards men of business. The trouble arises mainly from the difference in their viewpoint. It is strikingly exemplified at times when business men are called upon to exercise the prerogative of an official, and vice versa. They are confronted with new sets of facts and conditions which are often causes for great difference in the angle of their vision. There are, of course, business men with no outlook beyond their pocketbooks, but they are fewer probably than at any other time in the history of the country. There are men in office with narrow views and unworthy purposes, but even a casual investigation will convince one that the official of today is cleaner than ever before. There are exceptions in both groups, but the humanity underlying both classes is much the same, particularly in the ability to see clearly the shortcomings of the other.

The men of business and the officials, representing here today a great industry—the manufacture, the sale, the control and the economic use of commercial feeding stuffs of this country, a business estimated at over $2,000,000,000 annually, may be cited as a concrete example, but happily it may be said that while their viewpoint may differ widely in many important respects, yet confidence in one another is at a higher point than ever before. This is due largely to a better understanding of actual facts and conditions by both the manufacturer and official.

G. A. Chapman of the Quaker Oats Company, Chicago, presented a very interesting paper on feeds and feeding, in which was set forth the history of feed stuffs covering a period of sixty years.

"Sixty years ago," he said, "there was no knowledge of scientific feeding in the United States. Sixty years ago there was no feed industry in the United States. Thirty years ago the teaching of scientific feeding in the United States began. Thirty years ago the feed industry in the United States began. When I say that 60 years ago there was no feed industry in the United States, I mean that there was no feed industry such as we of the present day apply to the term. At that time the population of the United States was only one-fourth what it is today. The problem of feeding domestic animals, as well as human beings, was simplicity itself—in fact, it was not a problem. We had more land than we knew what to do with. The owner of live stock raised more grain and more hay and had more pasturage than he had animals to consume or that he had a market for. Domestic animals were fed on the natural grains and hays, grown upon the same farms as themselves. The city or town owner of horses or live stock bought his feed stuffs mostly direct from the farmer who grew them. By-product materials of the greatest feeding value, when produced in far smaller quantities than at the present day, were not sufficiently appreciated nor sufficiently needed to cause the farmer to make the effort to haul them from the mill or factory to his farm, much less to buy them. Scientific feeding with knowledge of the balanced ration had not as yet been taught in our state universities. The value of grinding the natural grains was only slightly understood and was practiced only in a very limited way by a few of the more progressive and thoughtful feeders. Flour mills experienced the greatest difficulty in finding a market for their bran and middlings. While these by-products were probably the first to be recognized as of great feeding value, yet hundreds of thousands of tons were sold for a few dollars a ton, or burned.

"It is only a matter of 25 to 30 years ago that the farmers of Kansas found little or no market for their corn, realizing only a matter of 10 cents or 12 cents per bushel, and they found it far more economical to use corn for fuel than to buy coal. So great and rapid has been the development of this country, so enormous has been its increase in population, that today those same Kansas farmers—the same identical men who burned their corn for fuel or sold it for 10 cents to 12 cents per bushel—have, during the past year, sold their corn, the product of the largest crop this country has ever raised, for as high as 75 cents per bushel at Kansas City.

"The problem is sharply up to us of the present day to devise ways and means of conserving our food supplies and to check this upward tendency of prices. Every by-product material and every material which contains feeding value must be conserved and used. It was not until 1864 that Dr. Emil von Wolff, the great German scientist, published for the first time a table of feeding standards based on digestible nutrients contained in various feeding stuffs. These standards set forth for the first time the amount of digestible protein, carbohydrates and fat required daily by the different classes of farm animals. With the promulgation of these standards came the first widespread effort toward rational feeding of farm animals. The Wolff standards were not brought to the attention of the people of the United States until 1874, when Dr. Atwater, America's worthy pioneer in the science of animal nutrition, took up the work; and, if I am correctly informed, it was not until 1880 that much in an educational way was done by him. In this year he began the teaching of scientific feeding at the Connecticut Experimental station at Middletown, Conn. In 1880, Dr. Armsby's Manual of Cattle Feeding appeared, and three years later, in 1883, Dr. Armsby and Prof. W. A. Henry began the teaching and demonstrating of the great science of feeding at the University of Wisconsin.

"Simultaneously with the knowledge of feeding standards began the real feed industry in the United States. Manufacturers, realizing that their by-product materials were intrinsically worth far more than they were realizing, and in most instances far more than the natural grains from which they were produced, began installing machinery for grinding, drying and putting them into merchantable condition. Here also began the mixed feed industry, which has grown and developed into one of the greatest industries of the country. There seems to be no question of doubt but what the mixed feed manufacturer has done more to moderate the cost of feeding stuffs—and, consequently, the cost of human food—than any other influence. Without the influence of the mixed feed manufacturer it is difficult to estimate where the cost of grain and animal feeds would have gone to in recent years. The mixed feed manufacturer has been the real conserver of our feed resources."

Dr. Alsberg urged co-operation of state and government officials. "As far as I am able," he said, "I hope to use the influence of the Department of Agriculture in order that we may have efficient and uniform control of the feedstuffs and the feedstuff industry of the country. I think that what we all will admit readily as the most necessary thing is that we shall have uniformity from the Atlantic to the Pacific. The absence of uniformity is a hard thing on the manufacturer. I need not tell this association that if the manufacturer has to label his product differently for each state; it costs money

to do that, and the extra cost comes out of the consumer; not merely that, but it makes the feed control more expensive, because all the different states and the federal government have to examine each product, no matter how often the product has been examined by others. Now, it is not the function of an administrative officer such as myself to tell Congress or the state legislatures what they ought to do in the matter of legislative uniformity. It would be rather an impertinence and presumption on my part if I were to say what were to be legislated and what ought not to be, even if I were sure that I knew, and in the matter of feeds I have to depend on the judgment of the men who have this kind of work in their charge in the Bureau of Chemistry. I do not yet feel that I have a judgment of my own on this matter, but I feel that even without additional legislation, much as this is desirable, much can be done in the matter of legislative uniformity and in the matter of co-operation."

The following officers were elected for the ensuing year:

President, Dr. J. K. Haywood, Washington, D. C.; vice-president, Dr. H. B. McDonnell, College Park, Ind.; secretary-treasurer, Prof. L. A. Fitz, Manhattan, Kan. Executive committee—W. L. Jones, Jr., chairman, LaFayette, Ind.; Jas. W. Kellogg, Harrisburg, Pa.; Dr. R. E. Stallings, Atlanta, Ga.

President J. K. Haywood said with regard to his policy:

"It will be my earnest endeavor to promote in every way collaboration between the various states and the national government, with the end in view of obtaining uniformity in action in all matters pertaining to feedstuff control. It is my purpose to continue the policy already inaugurated by the association of suggesting to the various states that they adopt the uniform feed law endorsed by our association. It will be my endeavor to also promote collaboration between feed control officials and feed manufacturers with the object in view of arranging as many differences as possible by discussion and agreement rather than by court action.

Among those in attendance were: Dr. Carl L. Alsberg, chief chemist, U. S. Department of Agriculture, Washington, D. C.; C. H. Billingsley, Department of Agriculture, Montgomery, Ala.; E. L. Baker, associate chemist, Agricultural Experiment Station, Geneva, N. Y.; Dr. G. L. Bidwell, United States Department of Agriculture, Washington, D. C.; Hon. E. O. Bruner, commissioner of agriculture, Baton Rouge, La.; W. L. Boyett, state feed inspector, College Station, Tex.; W. G. Campbell, Bureau of Chemistry, Washington, D. C.; Dr. Charles S. Cathcart, chief chemist, Agricultural Experiment Station, New Brunswick, N. J.; Dr. Howell Carter, Department of Agriculture, Baton Rouge, La.; Prof. L. A. Fitz, Agricultural Experiment Station, Manhattan, Kan.; Dr. G. S. Fraps, state chemist, College Station, Tex.; Hon. Guy G. Frary, food and drug commissioner, Vermilion, S. D.; A. L. Garrison, chief seed and feed inspector, Department of Agriculture, Nashville, Tenn.; H. H. Hanson, Department of Agriculture, Orono, Me.; Dr. J. K. Haywood, chief Miscellaneous Division, Bureau of Chemistry, Washington, D. C.; Dr. W. F. Hand, state chemist, Agricultural College, Miss.; Geo. G. Hutchison, Department of Agriculture, Harrisburg, Pa.; B. R. Jacobs, Bureau of Chemistry, Washington, D. C.; W. J. Jones, Jr., state chemist, Lafayette, Ind.; C. H. Jones, Agricultural Experiment Station, Burlington, Vt.; Dr. S. K. Johnson, Department of Agriculture, Columbus, O.; Jas. W. Kellogg, chief chemist, Department of Agriculture, Harrisburg, Pa.; W. Scott Matthews, state food commissioner, Chicago, Ill.; E. W. Morse, United States Department of Agriculture, Washington, D. C.; Dr. H. B. McDonnell, state chemist, Maryland Agricultural College, College Park, Md.; E. W. Magruder, state chemist, Department of Agriculture, Richmond, Va.; J. M. Pickel, Department of Agriculture, Raleigh, N. C.; Benj. L. Purcell, assistant dairy and food commissioner, Richmond, Va.; J. B. Reed, United States Department of Agriculture, Washington, D. C.; A. C. Summers, Department of Agriculture, Columbia, S. C.; Dr. R. E. Stallings, state chemist, Atlanta, Ga.; J. D. Turner, Agricultural Experiment Station, Lexington, Ky.; Hugh Webster, Agricultural Experiment Station, Washington, D. C.

ATTENDANCE OF NON-MEMBERS.

H. G. Atwood, American Milling Co., Peoria, Ill.; J. M. Aydelotte, Cottonseed Crushers' Association, Oklahoma City, Okla.; J. W. Anderson, Kornfalfa Feed Milling Co., Kansas City, Mo.; Harold A. Abbott, The Albert Dickinson Co., Chicago, Ill.; R. P. Benedict, Darling & Co., Chicago, Ill.; E. R. Barrow, chemist, Memphis Merchants' Exchange, Memphis, Tenn.; J. D. Braue, J. D. Braue, Inc., Jordan, N. Y.; L. F. Brown, secretary American Feed Manufacturers' Association, Milwaukee, Wis.; W. D. Bigelow, National Canners' Association, Washington, D. C.; T. J. Bryan, Calumet Baking Powder Co., Chicago, Ill.; F. W. Brode, F. W. Brode & Co., Memphis, Tenn.; Robt. W. Chapin, Chapin & Co., Hammond, Ind.; G. A. Chapman, Quaker Oats Co., Chicago, Ill.; H. G. Cherry, president Interstate Feed Dealers' Association, Kansas City, Mo.; J. T. Conkey, G. E. Conkey Co., Cleveland, Ohio; Arthur J. Dodge, Northwestern Miller, Minneapolis, Minn.; Sherman T. Edwards, Edwards & Loomis Co., Chicago, Ill.; J. J. Ferguson, Swift & Co., Chicago, Ill.; W. R. Gregory, American Hay, Flour & Feed Journal, New York; J. H. Genung, American Hominy Co., Indianapolis, Ind.; R. D. Hobart, M. C. Peters Mill Co., Omaha, Neb.; A. P. Husband, secretary Millers' National Federation, Chicago, Ill.; C. L. Ives, New Bern Cotton Oil & Fertilizer Mills, New Bern, N. C.; E. E. Johnson, Clover Leaf Mfg. Co., Buffalo, N. Y.; Charles A. Krause, Chas. A. Krause Milling Co., Milwaukee, Wis.; F. S. Lodge, Armour Fertilizer Works, Chicago, Ill.; J. B. McLemore, secretary Southwestern Millers' Association, Nashville, Tenn.; H. B. Meyers, American Food Journal, Chicago, Ill.; F. A. McLellan, The H-O Co., Buffalo, N. Y.; Dr. Carl S. Miner, Miner Laboratories, Chicago, Ill.; Milton C. Peters, M. C. Peters Mill Co., Omaha, Neb.; W. A. Reynolds, Interstate Cottonseed Crushers' Association, Charlotte, N. C.; R. P. Sellew, Chapin & Co., Hammond, Ind.; A. T. Schmick, Western Grain Products Co., Hammond, Ind.; Elmer S. Savage, Cornell University, Ithaca, N. Y.; S. E. Vincent, Vincent Bros., Bridgeport, Conn.; Wm. Wallace, Penn Grains & Feed Co., Philadelphia, Pa.; Allan B. Wallace, J. C. Smith & Wallace Co., Newark, N. J.; Adolph Woolner, Jr., Continental Cereal Co., Peoria, Ill.; Ed. H. Webster, Hoard's Dairyman, Ft. Atkinson, Wis.; A. G. Winter, Lynnhaven, Va.; W. Youtsey, Buckeye Cotton Oil Co., Cincinnati, O.; L. M. Lamm, Flour & Feed, Washington, D. C.; W. W. Shaw, Wyncote, Pa.; E. C. Stacy, Seneca Stock Food Co., Tiffin, O.; L. J. Meader, Meader-Atlas Co., New York City, N. Y.; Maurice Pincoffs, 1112 Webster Bldg., Chicago, Ill.; A. F. Seay, Ralston Purina Co., St. Louis, Mo.; O. E. M. Keller, International Sugar Feed Co., Minneapolis, Minn.; C. U. Snyder, C. U. Snyder & Co., Chicago, Ill.; Messrs. Anderson and Baldwin, Anderson Expeller Co.; A. C. Westervelt, Humphreys-Godwin Co., Memphis, Tenn.

AMERICAN SPECIALTY MANUFACTURERS.

On November 20-21 the American Specialty Manufacturers' Association met in annual convention.

President J. E. Linihan, in his annual address, pointed out the fact that the relationship between the organization and that of associations like the wholesale grocers' associations and the retail grocers' associations was most satisfactory. In fact one of the essential reasons for the existence of the specialty manufacturers' organization was to maintain a harmonious relationship with distributors. President Linihan took occasion to compliment the work of the auxiliary associations, saying that much of the success of the specialty manufacturers' organization was due to the good work of the auxiliaries.

A number of addresses were made by officials of the wholesale grocers' and retail grocers' associations. President McGlasson of the Wholesale Grocers' Association called attention to the fact that his organization was an early and enthusiastic promoter and supporter of the pure food laws, and today stands for pure foods of all kinds.

President Schwab of the National Retail Grocers' Association had much to say about co-operation among food associations to the end that we may have uniform food laws and rulings.

Following is a list of officers elected for the ensuing year:

Louis Runkel, of the Runkel Bros. Company, president; Fred Mason, of the Shredded Wheat Company, first vice-president; W. B. Cherry, of the Merrell-Soule Company, second vice-president; A. M. Alexander, of the Foulds Milling Co., third vice-president. The directors chosen for one year are B. T. Babbitt Hyde, J. D. Block and Carl A. Lautz; those chosen for two years are W. H. Lipe, Andrew Ross and J. E. Linihan; those for three years are Chas. T. Lee, W. W. McCormick and George Nowland.

The fourteenth annual convention of the Illinois Ice Cream Manufacturers' Association was held at the Stock Yards Inn, Chicago. October 28. The National Association of Ice Cream Manufacturers held its annual convention in Chicago October 29 to November 1. Addresses were made and discussions had on questions involving the betterment of the ice cream business.

Smut of Corn: Its Effect on Animals

Destructive Action of This Funguos Disease

By Dr. L. J. Tint

THE disease of corn known as smut is very familiar to every farmer. It causes various abnormal growth or deformity on leaves, stems and roots. Before maturity is reached the smut appears as whitish swellings or blisters, which contain masses of gelatinous mycellium or filaments from which spores are produced. These spores when ripe cause the rupture of the enclosing sheath and escape as a dusty black powder. Not unfrequently at the time of shelling a black cloud is produced around the barn from these spores.

A spore or germ when examined under the microscope is somewhat spherical in shape and covered with delicate spines. Spores when remaining on the ground are capable of wintering over and causing infection to the next year's crop. When fresh manure is placed on the field where smut is present, these spores begin to germinate and bud out like yeast, in which condition they directly infect the corn seedlings or young plants, or any growing part of the adult plant. Though any part of the plant may be affected, the heads are more frequently attacked. The grain, therefore, fails to reach maturity or is destroyed while the fungus is being formed. If the infection takes place on the stem, entrance is usually gained underneath the epidermis, or skin, as a result of which the cells multiply rapidly, like cancer cells on animal tissue, and cause various deformities.

When the smut is large enough to be seen with the naked eye, it is then too late to save the stalk. The fungus is usually present in the entire plant; the infection took place early, either in the seedling or in the young plant. Young plants as well as young animals and even children, are very susceptible to infection. There is less resistance at that time. The infecting agent may lie dormant for months or years and suddenly make its external appearance, in particular form characteristic of each disease. If farmers and others would pay attention to their seed and young plants they would benefit by it.



SMUTS LEFT ON THE FIELD.

In certain parts of Illinois and Indiana where I visited, smut on corn was abundant. Some fields contained from ten to twenty-five per cent of smut. I tried to explain to some farmers the destructive action of this fungus disease on corn. Some of them said this smut was there as long as they could remember, others replied it would require too much time and labor to remove them.

The only way to get rid of this pest is to take the diseased stalks from the fields and burn them. Seed should be selected from a field free from smut, and as a further precaution they should be dipped in various solutions—as copper sulphate, Formalin, etc.—and kept in a dry, clean place, and should not be allowed to freeze, which causes a failure to germinate. The next year each field should be visited frequently and as soon as smut appears it ought to be removed.

In the latter part of September many corn fields were already cut. Some farmers who began to realize the importance of separating the diseased from the healthy stalks, left the former on the field. Others paid little attention to the matter and cut, packed, and shocked the diseased with healthy stalks.

In the southern part of Illinois, Effingham County, corn smut is prevalent. Horses that were in the fields and ate diseased corn stalks took sick. They bloated, and when the gas was not speedily removed, they simply choked to death. These horses, if attended to early, would get well if plenty of salts was given them to favor the passage of (gas) wind. It happened that some horses after they ate of the diseased corn stalks were placed in the stable and became very restless. The next day their abdomen was distended with gas. The administration of salts by mouth or rectum seemed to be ineffective at this time; the bowels seemed to be as if paralyzed. Then the choice is left either to let the animal choke to death from pressure of gas or put a knife in a favorable place in the abdomen to permit the escape of gas. As there is no alternative, the latter procedure is usually practiced. The gas, which escapes with a hiss, gives immediate relief to the horse.

One horse in particular before he took sick was very fleshy, but four days afterwards showed a great loss in weight and marked emaciation. Within the last few weeks there were nearly two hundred sick horses in that neighborhood, and many of them died.

I visited the cornfield where some of the horses took sick. The fields and stalks were wet; it had rained for several days. The healthy corn stalks when broken or cut had a natural, or rather pleasant odor, but diseased stalks were sour and fermented, like vinegar or cider. I showed the farmer that diseased stalk after stalk had the same odor. It was more marked at the nodes. Smelling it he exclaimed, "that is just the odor of the gas which escaped from my horse's abdomen when a knife was run into it."

His field and the neighboring field had an average of twenty-five per cent of smut. I had no difficulty in convincing him of the great importance of removing and destroying the diseased stalks. The loss of a good horse is greater than the labor required to remove smuts from the field.

I visited another field where a valuable milch cow died several hours after eating corn stalks. Usually horses only eat the entire stalk, but mules and cows eat only leaves and tassels. This field, however, contained sugar cane, which was already cut. The cow gained entrance in this field and ate the stumps and very young stalks, which were soft and juicy; for the field and the stalks were saturated with rain. In a few hours the cow was found on the field suffering from asphyxia or choking from gas pressure in the stomach. Her belly was filled like a balloon and her hide was so stretched that it might have been used as a drum. As there was no one to assist in removing the gas, the animal died on the field.

These stalks were also sour and fermented, like vinegar. On microscopic examination the entire juice of the pulp was filled with spores of smuts in all stages of yeast-like budding.

One man who valued his horses too much put muzzles on them to keep them from eating the corn. These horses escaped the disease.

It seems probable that eating large quantities of stalks containing yeast fungi or other gas producing organisms, the stomach acts as a favorable incubator where multiplication of the organisms and gas production takes place. Fermentations or excesses of gas may have a tendency to paralyze the gastro intestinal tract, and bloating is the result. In treating such cases the farmer knows that as soon as he can cause the escape of gas the animal will get well.

It frequently happens when human beings eat unwholesome or tainted food, colic or severe pain is the consequence.

The tendency with some people is to get patent medicines to stop this pain. The usual medicine that stops colic also causes paralysis of the bowels, with the retention of the poisonous material. Inflammation of the stomach or bowels is not uncommon, or the absorption of the toxic material will endanger the life of the individual. When such persons recover, they are invalids for many years. If these people would do to themselves as the farmer tries to do to his horse, to remove the cause of the trouble as soon as possible, great discomfort and chronic diseases could be avoided.

I was told at Effingham the average yield of corn is twenty bushels per acre. Deducting twelve to twenty-five per cent for smuts, there is not much left for the farmer, not even to pay for labor. For every twenty acres there is a loss of about fifty to eighty bushels of corn, or about two and one-half to four acres. If, however, the diseased corn would be removed from the field, in several years the loss would not only be converted into gain, but the seed and future crops would not be endangered and the soil ruined.



SMUTS NEAR A SHOCK.

If part of the land would be allowed to remain idle or to grow other crops not favorable for smuts, and greater attention would be given to fewer corn fields, the farmer would ultimately get better returns and healthier crop. Great deal of labor, loss of seed, infection of the soil with no yield, and danger to the cattle from disease would be avoided.

In several cribs, in which some new corn was placed, cobs not containing smut were, however, moldy, and one-third of the grains were diseased. These were fed to the stock. There is a prevalence of opinion with some people that corn on the cob, if sufficiently diseased and not fit to sell, should be fed to stock. Yet these very people would not think of buying similar corn direct from the market.

When one goes through many fields and sees part of the crop ruined by various diseases, or sees the great destruction of fruit tree after fruit tree, which are left untouched to breed and spread more disease, then one realizes why the cost of living is continually increasing. With improved methods of farming and better transportation, the problem of the cost of living will be solved in the future by the farmer for the benefit of the people.



SMUT PARTIALLY RIPE.



SMUT SPORES ESCAPING.

REPLY TO DR. TINT.

Editor American Food Journal:—I was interested in reading in the November issue of THE AMERICAN FOOD JOURNAL Dr. Tint's letter in reply to A. L. Nehls' communication. He says in part:

"The distribution of sugar and spices, etc., as well as the equal distribution of heat, depends on direct steam or steam from coils. This does not seem to be very thorough.

"I suggested the introduction of rotating paddles such as are used in some yeast plants. This would favor an equal distribution of the spices and sugar, at the same time it might prevent burning by keeping the contents continually stirred."

Further on Dr. Tint says:

"A large number of manufacturers have abandoned the use of preservatives. It is a food product; is put up from the best material and proper sanitary precautions are taken; there is no need for preservatives. Why use them? However, every individual has the right to use preservatives if he so desires, provided it does not interfere with the health of others. Quote Thornton on pure food drugs, page 231:

"'It can be readily seen from this tabulation that the opinions expressed point overwhelmingly to the fact that preservatives as a class are injurious to health, and hence their use is, under the act, inhibited.'"

I notice Dr. Tint states that sugar, spices, etc., are mixed in with the catsup. The "etc.," I presume, means vinegar and mustard. In reference to the statement, "A large number of manufacturers have abandoned the use of preservatives," I would like to ask: What are sugar, spices, vinegar, salt, pepper, wood smoke, etc., used for except to preserve and change the original flavor of food so as to satisfy the cravings of a palate that has been wrongfully educated? ,In reference to the Thornton statement that preservatives as a class are injurious to the health, etc., I beg to say there is no scientific authority to prove the above statement. The first food preservatives investigated were borax and boric acid. Dr. Wiley fed the members of the so-called "poison squad" borax and boric acid in capsules, off and on, for seven months. He says in his report of the test that the men appeared to be and declared themselves to be in better physical condition than when they entered upon the experiment seven months before. If Dr. Wiley or any other person would conduct experiments and administer tobasco sauce, horseradish, pepper, mustard or vinegar in capsules for seven months, what do you suppose the effect on health would be?

That there is something radically wrong with the average dietary is shown from mortality statistics. It doesn't make any difference where statistics come from in the United States, the death rate from diseases of the circulatory system and diseases of the genito-urinary system far exceed the deaths from diseases of the respiratory system.

According to mortality statistics from Washington, week ending Nov. 8, 1913, the largest number of deaths during the week under consideration was from organic diseases of the heart. There were thirteen deaths from these causes. Twelve deaths resulted from Bright's diseases of the kidneys, ten deaths were caused by malignant growths, eight from pneumonia and seven from pulmonary tuberculosis.

There is no question but what the foods and liquids mankind partakes of are the cause of the increase in deaths from the circulatory system, genito-urinary and respiratory system. The respiratory system is affected by a person partaking of food to please the palate, not the digestive organs, by partaking of highly seasoned indigestible foods. Such a diet lowers the resisting powers, thereby making the patient attractive to tubercular germs.

When one's stomach is deranged by trying to digest rich and highly seasoned foods, and the doctor's advice is sought for, the doctor immediately cuts out of the dietary of such a person gravies, rich foods, pies and cakes, highly seasoned foods, etc., which clearly demonstrates that the food was the cause of the condition of the stomach.

Just because the pure food law permits the use of salt, sugar, mustard, vinegar, spices, alcohol, wood smoke, etc., which have been used for ages, doesn't prove that they are beneficial to the health of mankind.

H. L. HARRIS.

Suit asking for a permanent injunction to restrain Dairy and Food Commissioner J. Q. Emery from enforcing the corn syrup law, enacted by the last legislature, requiring syrup containers in Wisconsin to be correctly labeled, has been started in the Federal Court by the Corn Product Refining Company of New York.

DILUTION OF VINEGAR.

Chicago, Ill., November 12,

Editor American Food Journal:—Your issue for November contains two letters, or edicts, from J. J. Higgins, "Assistant Commissioner Foods, Feeds, Fertilizers, Drugs, Oils and Bakery, Insp." of the State of Washington, which afford subject for an exhaustive preachment about what officials may not know regarding the subject matter of their jurisdiction.

Mr. Higgins has discovered that manufacturers of Cider Vinegar have been in the habit of reducing with water vinegar unpalatably strong to a strength proper for table use, and still strong enough to conform to the requirements of the laws of the United States and of the various states, in-

He does not know, apparently, that the percentage of sugar in the apple determines the strength of the vinegar made from it, that an early fall apple may not make a vinegar strong enough to make the legal minimum of four per cent, while a late fall or winter apple may make six and a half per cent, which latter is so strong as to be unfit for any purpose whatever and must be reduced with water before it can be used.

He does not know that if the reduction is made with distilled water there is no chemist on earth—not even he of the Food Commission of the State of Washington—who can tell the reduced vinegar from one made from apples below the average in sugar. If vinegar is so strong that it cannot be used who shall reduce it so that it can be used, the manufacturer, the jobber, the retailer or the consumer? The law itself answers the question. "All vinegars shall contain not less than four per cent of acetic acid." As the jobber and retailer have no means of reducing to the legal standard strength, and the manufacturer has, he unquestionably is the one who should reduce. He does not know that this reducing does not *injuriously* affect its quality or strength, but on the contrary improves it for human use.

Washington has still the old wornout and discredited clause prohibiting the presence of any preparation of lead, copper, sulphuric acid or ingredients injurious to health, and Mr. Higgins does not know, though the authors of the law may have known, that there never was such vinegar made or sold in the United States. He does not know that the clause was and is a ghost conjured up by clever sellers of bad apples to create a market for them by scaring the public into the belief that if they did not buy *their* sort of vinegar they might be poisoned with lead, copper or sulphuric acid.

He does not know that the so-called cider vinegar is *always* made from the rejected fruit, from rotten and worm-eaten apples, from windfalls and nubbins, from fruit which can be used for nothing else unless it be hog feed, and that the legislation which has been enacted to push this stuff is a lasting shame to the country.

He does not know that the intrinsic value of vinegar depends on the content of acetic acid and upon its purity; that five per cent vinegar is worth, for instance, twenty-five per cent more than four per cent, and that cider vinegar because of its impurity cannot be used and is not used by packers of meats or vegetables, or manufacturers of any foods which require preserving.

He does not know that distilled vinegar is used for these purposes exclusively, because it is pure, being distilled, and that whether it is white, or colored by burnt sugar, it is superior, as well as cheaper than any vinegar for sale.

This brings us to the fact which attracted our attention in these pronunciamentos, viz: the readiness of men clothed with a little brief authority to legislate. They are not content to execute the law as it exists; they construe it and create it; they are the legislature, the judiciary and the executive—"the whole works." We wonder if they can be made to see the humor of it, for the spectacle of a few men working for salaries less than that of good traveling salesmen, holding up a whole community by prosecutions based upon ignorance, has its humorous side.

Mr. Higgins says his Department has ruled against any dilution of vinegar. That would, of course, include distilled vinegar which is commonly shipped to considerable distances as strong as it can be made, varying from eight to eleven per cent, or two or three times the strength fit for the table. He says that all distilled vinegar colored in any manner shall have plainly printed on the label that "it is colored *and stating the object of the use of the coloring matter.*" The manufacturer must not only label his product in a certain way, but he must print also his motive! As men are actuated by various motives in doing anything, we are curious to see

the labels on vinegar packages in the State of Washington a year hence.

Does the law require this? The copy we have does not, and if not by what warrant do these men create it?

Perhaps we can give him one reason why coloring is used. It is the clause in his law prohibiting lead, copper and sulphuric acid. This creates the impression in the community, as it was designed to do, that only cider vinegar was healthful, and that any other was dangerous, so if an article was not cider vinegar it should look like it. It is a submission to a law, based on ignorance or fraud.

A. P. CALLAHAN.

ICE CREAM MANUFACTURERS' MEET.

It affords me much pleasure, in response to the invitation of your officers, again to greet you and to extend my congratulations to you upon the growth and vigor of your organization and business.

You doubtless have many important matters requiring your united attention, so I shall not weary you with a long speech.

I wish, however, to express my sense of the public importance that the ice cream manufacture has reached within a very few years.

The growth of your business in the United States has been marvelous. Your output has grown from 55 million gallons in 1899 to 120 million in 1909, and the development continues without decrease in the rate.

The growing demand for your raw materials has gravely affected the distribution of dairy supplies. The increase in the output of individual factories has called for numerous improvements in manufacturing machinery and methods, for the purpose of securing greater economy and more perfect control over quality.

You could not have reached the present state of production except by a change in the popular use of ice cream and similar products.

A few years ago, ice cream was a luxury for the rich or well-to-do; and was made in the kitchen or in the shop of the small confectioner. Today, it is an article in the diet of the children of the poor, is sold by every corner drug store and by the push-cart man and the lunch-stand keeper at every public gathering, and is made and shipped in large quantities in central factories as well as in thousands of petty, often ill equipped and poorly conducted small establishments.

Let me ask your especial consideration of the problem presented by these small, poorly conducted establishments. I ask your consideration of the subject because the product appears to the public under the same name as that made in your large, clean places, and it is your interest carefully to guard the good name of your product. The problem is not so much one of guarding against the use of foreign materials or substitutes for the normal ingredients as it is that of securing a satisfactory sanitary condition of material, making and handling of the product.

In the tenement wards of our cities, and equally in many of our industrial villages, the so-called ice cream manufacture is largely in the hands of foreigners, thrifty and industrious, but absolutely ignorant of American standards of cleanliness and other sanitary conditions. I have seen numerous little places where ice cream, so-called, has been made under revolting conditions; places that are dark, unventilated, ill drained and filthy; cellars, bed-rooms, spaces in which filthy, ill-smelling water-closets are located. We all have seen the push cart with its ice cream cones, filled and ready to sell to the school children, standing or pushed about through the breezes ladened with the filthy dust from our streets and gutters.

Now the American public is restive under conditions that permit such lack of sanitary care in food making and selling. The difficulty of the subject has kept our laws indefinite, but the people really care more about the sanitary history of an article than they do about it being composed in part of a clean substitute.

Public opinion makes it impossible, even if I desired so to do, to disregard the unsanitary conditions prevailing in hundreds of little ice cream establishments. The problem of correcting the evil without injuring the business is today a pressing one.

And because it affects your industry, I bring it to you and ask your counsel as to the method most suitable and practicable for effecting the needed correction.

The sanitary history of a food article cannot be satisfactorily determined by any of the present scientific methods of examining the product. For that reason I have been able to devise no method except one involving a sanitary inspection of the places of manufacture—a method to which manufacturers usually object and to which government officers feel equal reluctance. Such method to be effective must be accompanied by a restriction of the manufacture to licensed, approved establishments, even though the license fee be made almost nominal—say $5 a year—so as not to destroy the business of the small establishments.

I do not, however, bring the problem to you with any plan to which I am committed and that I wish you to endorse. It is my purpose rather to present the problem in such relations that I may have the benefit of the broadest discussion on your part, and the fullest counsel of your legislative committee.

It is an old saying that "Rome wasn't built in a day." This same applies truthfully to all great improvements in public practice. It is, however, too often used as an excuse for inaction and to cover the shirking of responsibility. We shouldn't expect to build our Rome in a day, but we should expect of ourselves that in our day we should do a good, strong, honest day's work upon it.

Pennsylvania and her seven millions of inhabitants spend collectively about $600,000,000 annually for food products, and to each of these millions of citizens life and the hard bought earnings from the day's labor are most important. It is the duty of the food bureau to protect the consumers of the state from imposition by those who would deliver to them food products that are injurious to health, unclean or fraudulent in character. The officer of the law, however broad his authority, cannot go far unless the people support him. Much of the progress we have made has been due to the vigorous support given by honest dealers and the public press.

WHY MEN DRINK.

In a current publication a learned professor makes an entertaining effort to discover the reason why men drink, says the Boston *Globe*. He finds that men drink chiefly for relaxation, for change, in order to give the higher part of the brain a chance to rest, while at the same time calling the lower part into activity. In other words, they drink for the same fundamental reason that they play football or golf or poker or the stock market, or go to the theater or opera, or read novels, or dig in the garden, mow the lawn after business hours, or ride hobbies or motorcycles.

As far back as we can see into the childhood of the world, and in every age and nearly every clime, men have had to resort either to alcohol in some form or to some drug in order to escape from themselves and from the slavery of daily routine—out of the frying pan into the fire. Even before history began men were hard drinkers. Assyrians, Babylonians, Persians, Egyptians, Jews, Greeks and Romans were all addicted to drink.

Noah had not taken the pledge, or at least had not kept it, even after reaching the ripe age of 650 years, if we may credit the story that has come down to us of a rather embarrassing episode in his life. King David sang of "wine that maketh glad the heart of man," showing that he had an inkling of the reason why men drink.

The reason today is the same. Go of an evening into an American barroom, or English ale house, or German kneipe, or French cafe. Laughter and the flow of genial conversation and the sound of clinking glasses fill the air. Those refugees from routine are optimists, temporarily at least. For them the world is not going to the dogs. They agree with the poet that

"God's in His Heaven,
All's right with the world."

Life is beautiful. To them the "evil of drinking" is a myth. At bottom the craving for alcohol is essentially psychical, metaphysical, occult, mystical. It goes down into the roots of human nature. No one has ever put that profound truth into more striking and beautiful words than has William James:

"The sway of alcohol over mankind is unquestionably due to its power to stimulate the mystical faculties of human nature, usually crushed to earth by the cold facts and dry criticisms of the sober hour. Sobriety diminishes, discriminates and says no. Drunkenness expands, unites and says yes. It brings its votary from the chill periphery of things to the radiant core. It makes him for the moment one with truth. Not through mere perversity do men run after it. To the poor and the unlettered it stands in the place of symphony concerts and literature, and it is part of the deeper mystery and tragedy of life that whiffs and gleams of something that we immediately recognize as excellent should be vouchsafed to so many of us only in the fleeting earlier phases of what in its totality is so degrading a poisoning."

Pennsylvania Correspondence

(From our Staff Correspondent.)

HARRISBURG, PA., Nov. 28.—Pennsylvania's cold storage law is being put to the test right now. The people who inaugurated the proceeding to test the constitutionality of the law by an action in equity have stood back, and the people who use the cold storage warehouses are now engaged in a struggle with the state authorities. Dairy and Food Commissioner James Foust takes the position that the law as it stands must be enforced, and, backed up by the attorney general, says that butter and eggs in storage longer than the law allows in the time limit will be tagged as "outlawed" by his agents if they remain a day over the time limit.

Commissioner Foust has been vigorous in his comments upon the owners of butter, eggs and other provisions in storage, blaming them for high prices, and declaring that they can bring down prices by throwing their holdings on the market. The people holding foods have been classed by him as speculators, and have retorted in kind through the newspapers. The law, which was a compromise, is being savagely attacked as tending to keep up the price of food, and demands for its repeal have been made.

In the midst of the struggle, one of the grave defects of the law has been discovered in that there is nothing to prevent the withdrawal of eggs in a Pennsylvania storehouse when the limit is nearly ended and their shipment into another state, repacking and shipment back into storage. The law has a penalty for placing foods once withdrawn back into storage, but no one can identify eggs or butter very easily if the containers are changed.

This condition led Mr. Foust to make a declaration in favor of a federal cold storage act a few days ago. "The greatest need just at present is an interstate law, one which will regulate the shipments of foods back and forth," said he. "There is nothing today that will prevent foods from being shifted about, if the owner cares to run the risk of being caught by a state law. Interstate regulation would solve the problem."

The cold storage warehouse owners and managers have been highly complimented by Commissioner Foust for their obedience to the law. The law requires that free access be given to all warehouses and that reports be made to the commissioner quarterly on the provisions in storage, the date of entry and the time of withdrawal in future. "Not in a single instance have the agents of this division been denied access to a plant, and the warehouse people have been scrupulous in complying with the requirements of the law in the matter of reports. They have furnished all information asked, often at considerable expense in time. They have been co-operating as contemplated by the act," says the commissioner.

The action in equity to test the act has been postponed three times, and it would appear that the people interested will hardly make the test before the first of the new year. The public mind is just now occupied by the stir over the enforcement of the law, and it may be that the attorneys are awaiting to see the way sentiment will form.

It stands to reason that a determined effort will be made to strike the law off the statute books at the next meeting of the legislature, but it is certain that the regulation of cold storage will be a political issue, and a series of amendments with changes in the time limits for storage is more probable.

The Dauphin County Court is considering the motion for a new trial in the "pure vinegar" case, which involves the question whether a manufacturer or retailer has the right to add water to the product of the mill. This case resulted in conviction of the merchant who was arrested on a test case, and no matter which way the issue goes in the lower courts, it will be appealed to the higher tribunals.

Commissioner Foust struck a responsive chord in his address to the State Convention of Ice Cream Manufacturers at Wilkes-Barre, when he suggested a state system of inspection of ice cream factories. The commissioner spoke strongly against the condition of some of the small plants, where the common sanitary precautions are seldom taken, and where dirt, false flavors and skim milk rule. These "holes in the wall," operated by foreigners with no conception of the injury they do to the trade by their filthy places and lack of care in vending, were denounced by the commissioner as bad for the public and injurious to the manufacturer who makes cleanliness and purity his rules. Mr. Foust suggested that there be established a system of state licenses, costing, say, $5 a year, which would require every place manufacturing ice cream for the public to be inspected annually. This sum would not bring a hardship, and its display in public would attract attention. At the same time, the inspection would force the careless, ignorant or wilful violators of the rules of sanitation to clean up or get out of business.

The State Legislative Commission, charged with investigation of the cold storage situation and the recommendation of such laws or changes to laws as required, has begun its work with the rather startling announcement by a couple of the legislators that they believed the act was decidedly wrong in imposing certain time limits. There is considerably more disposition on the part of the legislators to study the subject now than there was manifested last winter, when the half dozen cold storage bills were pending, and a conference committee was working out a measure which would go through. The cold storage men propose to make a clean, straightforward statement of their objections, just as they did to the governor before he signed the bill, and to trust to public sentiment to do the rest. At the preliminary meeting, at which little more than organization occurred, permission was asked to have evidence produced to show the burdensome features of the law. The commission proposes to hold a number of meetings, sitting at Philadelphia, Pittsburgh, Scranton, Erie and other places. Senator Charles H. Kline, Pittsburgh, is chairman.

Wholesale arrests of retailers for failing to observe the requirements of the cold storage law that eggs in storage be placarded as such and not sold as fresh and for placing back in storage eggs which have been withdrawn, have been taking place in Pennsylvania. The bulk of them have been in Philadelphia, where special attention has been given to the enforcement of the act. Most of those arrested complain that people turn from cold storage eggs when placarded, although they are wholesome. This popular prejudice is going to be one of the hardest things to overcome.

The new women's employment law has worked havoc among hotel, restaurant and cafe cooks and other help. The law prohibits any woman being employed more than six days a week or an aggregate of fifty-four hours for the week. In many hotels cooks and other help have worked for years seven days a week, being given afternoons and evenings to do as they please. Under the new law they can work only six days and a system of "days off" is now being put into effect in the hotels of the state with consequent complaint from those required to take less pay and more the public. The law has been sharply criticised in many parts of the state because of the failure to vest any discretionary powers in the commissioner of labor. Threats of tests of its constitutionality have been made and either a new law or many amendments is expected next session.

LIVE STOCK EXPOSITION.

The International Live Stock Exposition, which opened at the Union Stock Yards, November 29, will continue until December 6. As usual, there has been a big entry made of the various breeds of live stock, and the interest in these exhibits has not lagged at any time during the early days of the show.

This exhibition was originally conceived for the purpose of educating the farmers of the country up to the necessity of improving their live stock. During the years that it has been held there has been a steady improvement in the live stock of the country. Scrub stock has wellnigh gone out of existence, because the farmer has been shown it pays to keep well-bred stock of all kinds.

The importation of 30,000,000 pounds of foreign meat during the first thirty days the Underwood tariff law was in effect hardly caused a dent in the market. Notwithstanding the importation of a fairly large number of cattle and sheep, under the free cattle provision of the tariff law, yearling beeves reached the highest mark of the year on Nov. 4, one month to a day after the tariff law went into effect, and the prices on all cattle showed a slight increase.

Indiana Correspondence

(By a Staff Correspondent.)

INDIANAPOLIS, November 27.—State food authorities in Indiana have placed a heavy hand on storage products here, though H. E. Barnard, state food and drug commissioner, declares that Attorney-General McReynolds will have little to "uncover" in the storage houses of Indiana if he sends his investigators here on the national effort to solve the high cost of living question by the storage investigation route. The story of Barnard's explanation of why Indiana storage houses are guiltless of storing large quantities of food products to boost prices will be told later in this dispatch.

Meanwhile, rigid orders have been sent to inspectors in every county in Indiana to enforce without favor all of the regulations of the state department pertinent to storage. Among the orders is one that calls attention to the fact that all storage eggs sold in Indiana shall be labeled clearly. Renovated butter comes under the same ruling. In part the orders to the inspectors follow:

"The cold storage law of Indiana provides that when eggs that have been in cold storage for thirty days are sold at retail there shall be placed in or on the receptacle containing them, in full view of the public, a card not smaller than six inches in length, on which shall be printed the words 'cold storage' in plain gothic letters not less than two inches in length, and the wrapper, bag or container in which said eggs are delivered to the purchaser by the retailer shall be plainly stamped with the words 'cold storage.'

"Neglect to comply with these provisions subjects the person, firm or corporation responsible to a fine of not less than $25, and it is made the duty of all food and health officials to see that the law is enforced. Any evasion or neglect will not be tolerated.

"Your attention is further called to the renovated butter law, which requires that all butter produced by rechurning or reworking packing stock or other butter shall bear the words 'renovated butter' or 'process butter' in bold faced letters at least three-fourths of an inch high. This statement shall be made on the top and sides of the receptacle, package or wrapper in which it is kept for sale or sold.

"If butter is exposed for sale uncovered then a placard bearing the words 'renovated butter' or 'process butter' shall be attached to the mass of butter in such manner as to be easily seen or read. Violation of this law is punishable by a fine of not less than $25."

Another ruling of the state department this month carries with it the deepest significance to the Indiana housewife. It contains orders to inspectors to inform all ice dealers in the state that hereafter no ice check books will be allowed in use in Indiana that do not allow of payment for retail ice in five-pound sums. Formerly there has been much complaint in Indiana because of the use of books, which hold only 25-pound coupons. This makes an unfair situation for both purchaser and retailer, according to the state department, for oftentimes a block of ice, weighing forty pounds is all that is required by the housewife or all that can be delivered by the wagons. In such cases an injustice always is done either the retailer or the housewife when the wagonman takes checks either for twenty or fifty pounds. The new scheme will allow of accurately approximating the real value of ice. All icemen in Indiana are warned to have their 1914 lists of check books made out in accordance with the new rulings.

In a systematic resume of storage conditions in the state it has been found that comparatively small amounts of food products have been held in storage here. Several reasons are given for this. One of them—the most unfavorable to those dealing in commission business in food products in the state—relates to assertions that a group of financiers in Indiana systematically ship practically all food products for storage outside of Indiana, thus obviating the opportunity for Indiana cold storage houses to assist in any "cornering" of such products because of the inadequacy of original supplies.

Many persons in Indiana, who have kept closely in touch with food regulation, declare that this fact has left the state comparatively free from attempts to boost food prices via the cold storage route. Others contend that the case as outlined is not true to fact.

For these reasons, however, Attorney-General McReynolds will not find that Indiana storage houses have been parties to any attempt to boost prices to an unreasonable height by withholding food products, according to Mr. Barnard. Mr. Barnard today made public the result of an investigation of his own, which shows that Indiana cold storage houses have held very small amounts, relatively, of food products within their walls. Mr. Barnard makes the point that the entire list of products held by Indiana warehouses in storage, if placed on the open market at once, would not bring prices down.

The Indiana statutes give the state department power to compel reports from all storage houses regarding the total amounts of products held by them in storage. These reports have come in from the fifty storage plants in the state and have been tabulated by Mr. Barnard's office.

They show that a total of 9,437 cases of eggs, containing thirty dozen eggs to a case, were held in storage in the state November 15 this year. Bulk eggs, totalling 28,004 pounds, also were held here. This amount of eggs is but a drop in the bucket of the entire consumption of eggs in Indiana in a month, Mr. Barnard said. There were 386,724 pounds of butter in storage in the state on that date. The cheese totals in the state showed 714 boxes, 66,899 pounds and 15½ cases in storage.

There were 399,404 pounds of game and poultry in storage on that date and 827 cases, 22 kegs and 56,048 pounds of fish. A comparatively large amount of meats were in storage, as follows: 916,486 pounds, 546½ cases, 77 boxes and 160 barrels. Besides this amount, 307 carcasses of animals were in storage, totalling 112 carcasses of beef, 149 carcasses of hogs and forty-six calves.

Lard was in storage in the following amounts: 36,001 pounds, 158 tubs, 96 cans and 32 cases. Two hundred and fifty bushels of pears were stored. Apples were stored in the following quantities: 75,627 bushels, 23,183 boxes, 2,835 bushels and 11,000 crates. Twelve boxes of lemons were being kept on ice. Dried fruits, totalling 19,262 pounds, 5,571 boxes and 224 cases were on hand. One hundred thirty-six jars of canned fruit were being held in storage. Farm and garden produce were being held as follows: Potatoes, 1,000 bushels; onions, 400 bushels and 4,600 crates; cabbage, 700 crates; oats, two barrels and 56 cartons; cranberries, 19 barrels; celery, 3,142 crates.

But one barrel of pickles and three barrels of kraut were in storage. Thirty-five barrels of molasses and 1,465 gallons of milk and cream were reported. Nuts in two barrels, eleven boxes and four sacks were being held in storage, and 201 cases of peanut butter were reported. Malt liquor, totalling 1,104 barrels, were being held with ten barrels and five kegs of beer.

NEW HAMPSHIRE METHOD.

Editor American Food Journal:—You made this statement in your September, 1913, issue of the American Food Journal in an article entitled "Our Supply of Bad Milk," these words, "To rid the country of diseased (tubercular) cattle is the one big problem of the food world."

The published regulations for the production and sale of "inspected milk" is the way that the State Board of Health of New Hampshire has taken to solve this problem in so far as it is able.

To show you how the thing is working out, I will give you an actual case. The milk supply of the city of Portsmouth in this state comes from about 400 cows. The proposition was put up to the producers in that city that if they would produce milk from cows free from tuberculosis and under the conditions laid down, the State Board would grant them the license to use its name. It was difficult, it is true, to get the first man started, but finally this was brought about and in consequence the natural pride a man has in not letting his neighbor get the advantage asserted itself and now all the dealers are getting in line. The whole matter means that in the city of Portsmouth there will be nothing but tubercular-tested cattle sold, for after a herd is clean it would be the height of folly for a producer to buy an untested cow.

The producer to come under the class of makers of "inspected milk" must bear the expense of the test and the loss of the cows. As far as the cows are concerned the State Board of Health assumes no responsibility of their disposal other than that they must be eliminated from the herd.

As this is probably a new way of approaching an old problem I thought it might be of some interest to your readers.

WALLACE F. PURRINGTON, Inspector.

Recent Laws and Rulings

(Federal Court) Where a railroad company granted the American Sugar Refining Company a rebate from transportation charges for hauling their sugar from their refinery to the cars, the Interstate Commerce Commission held that such was an unlawful rebate, as the hauling cannot be classed as "transportation," or a "service connected with transportation," for which a carrier is justified in making an allowance under section 15 of the Interstate Commerce Laws.—American Sugar Refining Co. vs. Delaware, L. & W. Ry. Co., 200 Fed. 652.

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(Federal Court) The term "food" includes all articles used for food or drink by man, whether simple, mixed or compound.—Arbuckle vs. Blackburn, 113 Fed. 161.

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(Delaware) The state law of Delaware prohibiting the sale of bread by the loaf weighing less than one pound avoirdupois is a proper exercise of the police power, and is not unconstitutional for unreasonableness, as abridging the privileges and immunities of citizens. The law does not prohibit the sale of a roll, twist, bun or any form or shape of bread other than that which the term is ordinarily and popularly understood to mean.—State vs. Huber, 88 A. 453.

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(Massachusetts) Very generally the sale of imitations of staple articles of food, such as oleomargarine or of unwholesome articles, such as adulterated milk, has been regulated by statute or prohibited entirely, as the protection of the public health may require. However, the sale of harmless substitutes may be made lawful where the consumer is advised by color, label or other device of the exact nature of the article which he proposes to buy.—Commonwealth vs. Kelly, 163 Mass. 169.

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(Maine) A railway company is not an insurer of the quality of canned goods furnished on its dining cars, and where it serves canned goods of a high grade, a reliable brand, sold by a well known dealer, guaranteed under the food and drug act and without defect discernable to the eye, smell or taste, is not liable for injuries to passengers eating the goods which proved to be poisonous. The plaintiff, a young woman, was served with canned asparagus which, from all appearances, was wholesome food. The taste was the same as that of any other asparagus, but she became violently ill after partaking of the same.—Bigelow vs. Maine Central R. Co., 85 A. 396.

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(Mississippi) A beverage containing no alcohol preservatives, or saccharine and non-intoxicating, but containing 5.73 per cent malt, is a malt liquor within the meaning of the state law which prohibits the sale of any vineous, alcoholic, malt, intoxicating or spirituous liquors.

The law cannot be said to be unconstitutional as beyond the police power, the state being authorized to conserve the public morals, and to enact all laws reasonably necessary to prevent evasion of the primary purpose.—Purity Extract and Tonic Co. vs. Lynch, 56 So. 316.

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(Missouri) "Food" is the substance that promotes the growth of animal or vegetable life. Tobacco is not a food, for it contains no nutriment. It is merely a narcotic. Where a dealer sells a bad or unwholesome cigar to a customer, the latter cannot have him indicted under the Pure Food Law of the state, which provides a punishment for any person selling poor or unwholesome food.—State vs. Ohmer, 34 M. A. 115.

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(Nebraska) Reasonable food laws which make the authority of the food commissioners and boards of health effective for the protection of the public are proper enactments, and must be respected by those who buy and sell and weigh and measure perishable foods. A person who, in selling food, disobeys a law regulating weights and measures, may be guilty, though he actually had no intention to break the law. The courts say that an evil intent may in certain cases be presumed from the violation of the positive law.—State vs. Thorpe, 143 N. W. 202.

(Washington) A manufacturer of food products under modern conditions impliedly warrants his goods when dispensed in the original package, and such warranty is available to all that may be damaged by reason of their use in the legitimate channels of trade, including those who purchase them for resale, as well as the ultimate consumer. Where food products are put up by the manufacturer in such form that their fitness for consumption cannot be ascertained except by the ultimate consumer, a party injured should not be required to bring suit against the dealer who actually sold him the goods, but he should be permitted to sue the manufacturer directly.—Mazette vs. Armour & Company, 135 P. 633.

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(Washington) Where a restaurateur buys canned meat from the manufacturer and serves the same to a guest, and the meat proves to be bad and unfit for food, and the guest, in a burst of anger, denounces the restauranteur for serving such food, the restauranteur may recover damages from the manufacturer for the injury to his reputation and that of his restaurant, the same being crowded with guests at the time of the trouble.—Mazette vs. Armour & Company, 135 P. 633.

WARNING AGAINST A FRAUD.

The Department of Agriculture, under the Food and Drugs Act, has recently been investigating a new trick of certain patent medicine and proprietary medicine vendors which it is believed is deceiving a large number of people into spending money for patent medicines under the impression that they are getting regular physicians' prescriptions for nothing.

In a number of publications the Department finds advertisements are appearing which state that the man or woman whose name is attached was saved from death from one of a number of serious diseases through some wonderful prescription given to him or her by a regular physician of unusual skill who will not allow his name to be used because of medical ethics. The advertisement states that the writer feels it to be a duty to communicate this invaluable recipe to humanity in order to save them from similar ills. The offer is then made to supply this prescription without charge to any one who will address a post card to the advertiser. People who do not stop to wonder who is to pay for the advertisement and the return postage and writing of the prescription are caught by this fraud and ask for the prescription. In due course a regular prescription is returned. This contains a number of ordinary ingredients and then under a technical name will call for a large proportion of some patent medicine or proprietary drug. The recipient takes this to a drug store to be filled and the druggist finds that he has to buy some of this patent preparation in order to fill it. He, therefore, has to order a large package or bottle of it and to make a profit must charge the customer a good, stiff price for filling the prescription. The customer, of course, gets what is in effect simply a patent medicine which, save that it bears a druggist's label and a prescription number, is the same as a patent medicine sold under the maker's own label and in the maker's own bottle.

The Government can not reach these people under either the Food and Drugs Act or the Postal Laws, because the scheme is so planned as to evade Government laws. The deception and misrepresentation appears in advertisements, circulars, letters, etc., separate from the package and the medicines are seldom sent through the mails. The best the Department can do, therefore, is to warn the people to be particularly suspicious of those who spend money for advertising space, postage, and letter writing, seemingly out of their love for humanity. In all of these cases there is a profit-making scheme back of the seeming philanthropy.

On November 1, Dr. Charles E. Gabel, bacteriologist of the Illinois State Food Commission, and Miss Lucy Frances Doggett of McKinney, Texas, were married. The couple will be at home in Chicago after December 15.

The first woman food inspector in Michigan was appointed by State Commissioner Helme recently, Mrs. A. O. Dunk, head of the Housewives' League was the appointee. Commissioner Helme complemented the work of the league highly and said it undoubtedly would help to raise the standard of cleanliness and purity in stores.

THE BAKING POWDER SITUATION.

Some time ago, as indicated in a previous Bulletin, this Department ruled against the presence of excessive quantities of arsenic or lead in baking powder, established a standard requiring that baking powder should contain 12 per cent of carbon dioxide, and prohibiting the use of egg albumen in baking powder, said constituent not being used in sufficient quantity to have any value, its only purpose being, as determined by this Department, that of deceiving and misleading the public through methods in general vogue among certain manufacturers.

A letter was sent to each of the leading baking powder firms doing business in North Dakota, asking if, beginning with October 1st, it was their intention to comply with the ruling made by this Department. This in order that the public might be informed as to the exact situation and know what firms were taking steps to comply with the provisions of the law. The following firms have stated through letters that they will comply strictly with the requirements of the North Dakota Law and the rulings promulgated by this Department: Griggs, Cooper & Co., St. Paul, Minn.; Atwood & Co., Minneapolis, Minn.; Stone, Ordean, Wells Co., Duluth, Minn.; Hunt's Perfect Baking Powder Co., Minneapolis, Minn.; No-Vary Products Co., Minneapolis, Minn.; Layton Pure Food Co., E. St. Louis, Ill.; Foley Bros. & Kelly, St. Paul, Minn.; Sherer-Gillett & Co., Chicago, Ill.; Sprague, Warner & Co., Chicago, Ill.; Snowflake Baking Powder Co., St. Paul, Minn.; Maas-Keefe Co., St. Paul, Minn.; Jaques Mfg. Co., Chicago, Ill.; Royal Baking Powder Co., New York, N. Y.; Rumford Chemical Works, Providence, R. I.; Price Baking Powder Co., Chicago, Ill.; Home Tea Co., Grand Forks, N. D.; Eddy & Eddy, St. Louis, Mo..

Thus far no reply has been received from C. F. Ware Coffee Co., Dayton, Ohio, nor from The Excelsior Specialty Co., Chicago. The baking powders made by the last two firms, as sold in North Dakota, have not been found to contain albumen as an ingredient of their products.

The Calumet Baking Powder Company, under date of October 13th, replied by telegram to our letter as follows:

"Replying to your letter Oct. 7th, will say Calumet Baking Powder complies with the laws of North Dakota and with every other ruling made by you until your recent ruling against egg albumen. We have used egg albumen in our baking powder since we began business more than 20 years ago. It is conceded to be wholesome and harmless and we insist is helpful. We have applied to the Department of Agriculture at Washington for a ruling under the Federal Law which we expect before Jan. 1st. Meantime we urge no steps be taken to intimidate or embarass dealers in North Dakota handling our goods. To comply with your demand that we omit egg albumen from our baking powder means that we make special baking powder for your state, which we regard inferior to Calumet. We stand upon our legal right to make wholesome baking powder that we have always made.

"(Signed) Calumet Baking Powder Co."

Under date of October 17th, they submitted copy of a letter which they stated was being sent to jobbers doing business in North Dakota, and which letter contained the following:

"Owing to a recent ruling by Professor Ladd which affects the sale of baking powder in the state of North Dakota, we are not shipping any Calumet into North Dakota at this time. The ruling bars the use of white of egg, a pure and wholesome ingredient that has been used by us for almost 25 years * * * *"

The Calumet Baking Powder Company decline to comply with the requirements of the law, indicating by their letter that for the present they withdraw from the state, and by their telegram that they will contest the right of North Dakota to bar the use of albumen from baking powders.

This information is given to the public that they may know what the situation is at the present time.

I might add that the Department maintains that its attitude with regard to barring of the use of egg albumen is in strict compliance with the provisions of our law; that the use of egg albumen serves no purpose in the baking powder except to make possible deception and fraud; and that the naming of egg albumen as a constituent of baking powder is misleading and deceptive in that there is not a sufficient quantity of egg albumen present to serve any legitimate purpose since there are only from four to eight ounces of albumen in one-half a ton of baking powder. None can deny the fraud in connection with the use of albumen in baking powder.

As to whether or not the National law, which is not the same as our State law, will bar the use of albumen or permit the authorities to bar its use, is not a question for the State authorities to consider, but, rather, whether or not the laws of North Dakota are such that they can prevent deception, fraud, and the misbranding of food products.

E. F. Ladd, Commissioner,
North Dakota.

REGULATE IMPORTED SAUSAGE.

A notice has been issued by Dr. Carl L. Alsberg, chief of the Bureau of Chemistry, Department of Agriculture, that all imported sausage will be required to comply with the regulations for domestic sausage which are contained in section 16, paragraphs 1, 2 and 3, of amendment 4 to the Bureau of Animal Industry order No. 150. The paragraphs read as follows:

Paragraph 1: "Sausage shall not contain cereal in excess of 2 per cent. When cereal is added its presence shall be stated on the label or on the product."

Paragraph 2: "Water or ice shall not be added to sausage except for the purpose of facilitating grinding, chopping, and mixing, in which case the added water or ice shall not exceed 3 per cent., except as provided in the following paragraph:

Paragraph 3: "Sausage of the class which are smoked or cooked, such as Frankforter style, Vienna style, and Bologna style, may contain added water in excess of 3 per cent., but not in excess of an amount sufficient to make the product palatable. When water (in excess of 3 per cent.) and cereal are added to this class of sausages the statement, 'Sausage, water, and cereal' shall appear on the label or on the product, but when no cereal is added the addition of water need not be stated."

COMPLAINT OF BAD MEAT.

Dr. Ward Giltner, state veterinarian of Lansing, Mich., is quoted as saying until Michigan comes up to the standard of Federal inspection the people of Michigan must expect to buy diseased meat. He declares that what Michigan needs is the public abattoir with stringent laws prohibiting the sale of meats in any community that has not passed an inspection act similar to that of the federal government.

"The diseases of meat producing animals transmissible to man are: Tuberculosis, anthrax, glanders, measles and a number of others. Tuberculosis is the most important of the infectious diseases. It is confined chiefly to the cow, hog and hen."

It would appear to be an expensive and difficult matter to have one public abattoir for the entire state. If one or more were located in every city and county it might work out.

Four persons living on the Hintz farm northwest of Elgin are still ill from the effects of ptomaine poison alleged to have been caused by pork sausage. Mrs. L. E. Hintz, Albert Selpein and two children, Florence and Harold Hintz, ate the sausage last Thursday morning for breakfast. The two children are still somewhat affected. Directly after the breakfast they became ill. They were the only ones of the family to eat the sausage. The pork had just been salted down for the family use. Mrs. William Hintz, the mother of the two children, said that they had also eaten some candy that morning. She thought, however, that the pork was the more likely cause.

Another suit to test the city milk ordinance of Chicago has been filed in the Circuit court. The plaintiff is Gustave E. Koy, who says the ordinance provision requiring recording apparatus on pasteurizing machines is invalid. Similar charges are contained in two prior bills filed by milk dealers. Koy asks an injunction to restrain interference by the health department for non-compliance with the ordinance.

As a result of the semi-annual meeting of the Texas State Veterinarians' Association held recently at the A. & M. College, a campaign for more strict laws and more rigid enforcement of the present laws governing milk and meat inspection in the cities will be conducted. The veterinarians expressed themselves as favoring an organized fight to eradicate infectious and contagious diseases in live stock.

Frank C. Tripp of Kansas City, who has a bakery in the basement of his home, was fined $5 for refusing to allow a pure food inspector to visit his place. He said he would go out of business before he would let an inspector interfere with him.

Survey of the Food World

ADULTERATED BEVERAGES.

The Loewenthall-Strauss Co., of Cleveland, Ohio, have been fined a total of $200 and costs, according to recent Notices of Judgment of the Department of Agriculture, for shipment in interstate commerce of certain adulterated beverages and adulterated and misbranded extracts.

This corporation shipped a quantity of "Monacco Brandy" into Pennsylvania, which was adulterated and alleged to have been misbranded. Adulteration was alleged because a mixture of brandy and neutral spirits, not cognac or cognac type of brandy, had been substituted wholly or in part for the true cognac brandy which the article purported to be. The product was labeled: "Monacco Brandy blend Cognac Type."

Another product labeled "Apple Brandy" was shipped by this firm into Alabama. As neutral spirits from a source other than the apple had been substituted wholly or in part for apple brandy, adulteration of the product was alleged.

This firm also shipped into Wisconsin and into New York a quantity of bitters which was misbranded. This product was labeled in such a way as to lead the purchaser to believe that it consisted of ingredients manufactured in Germany, whereas they were produced in the United States.

An extract of Jamaica Ginger compound, shipped into New Mexico by this corporation, was analyzed by the Bureau of Chemistry and adulteration was alleged because of the substitution of capsicum wholly or in part for ginger, also because the capsicum had been mixed and packed with the article so as to reduce, lower, and injuriously affect its quality and strength, and further because the product contained caramel, a coloring matter, whereby its inferiority was concealed.

Other fines imposed against the Loewenthall-Strauss Company were for the shipment into New York of a quantity of misbranded ginger cordial, which contained added capsicum and was artificially colored with caramel, and for the shipment into New York of adulterated extract of wintergreen, which was colored with an artificially green coloring matter, besides being of less than the standard strength.

Another corporation of Cleveland, Ohio, according to a recent Notice of Judgment, was fined $25 and costs for a similar violation of the Food and Drugs Act. This corporation, called the Cordial Panna Co., shipped a quantity of "cordial panna" into Pennsylvania, which was misbranded. There was a picture of a cow on the label and the statement that it "Aids digestion, a sustaining, stimulating auxiliary food. Rich in all nutritive principles. Milk Cordial—Panna Cream." The cow in connection with the words "panna," "milk" and "cream" were considered to be misleading because the purchaser might believe from them that the product might contain milk and cream, whereas it did not. Also the statement "Rich in all nutritive principles" was false and misleading as the product was not rich in all nutritive materials. In addition to this the label contained the statement: "Esposizione Del Lavoro E Dell Industria Noma 1903 Esposizione Industrie Inventioni Moderno Milano 1908," which might lead the purchaser to believe that the product came from Italy, when, in fact, it was a domestic product. Lastly, it contained alcohol and the label failed to mention the fact.

MILK STANDARDS.

The action of the International Milk Dealers' Association in endorsing the recommendations of the National Commission on Milk Standards is being hailed among health authorities all over the country as a most decided step forward in the fight for pure milk. This means, as one prominent authority put it, that the dealers have at last definitely joined hands with the scientific and public health authorities of this country in an agreement as to correct standards for milk. It is predicted that not only will the public be benefited directly, but this stand of the dealers will add enormously to the stability of the milk industry.

The International Milk Dealers' Association represents 55 of the largest companies in the United States and Canada. The resolution adopted by them in Chicago places the members of the association on record as favoring uniform milk standards, recommended by the National Commission on milk standards. and published in the United States Public Health Reports, August 22, 1913. These standards call for the classification and grading of milk, and the labeling of the container so as to permit the consumer to buy milk according to quality.

PEACHES AND TOMATO PULP SEIZED.

Five-gallon cans of tomato pulp to the number of 1,135 were seized on October 17, on the recommendation of the Department of Agriculture, in Cincinnati, Ohio. They were shipped by the Frankfort Canning Co., of Frankfort, Kentucky, and it was charged that in violation of the Food and Drugs Act an adulterated product was shipped in interstate commerce. The charge that the goods are adulterated is based on the results of an examination made in the Bureau of Chemistry, of the Department of Agriculture, which showed that the goods consist in whole or in part of a filthy, putrid or decomposed vegetable substance.

Shipments of a barrel of catsup and of 114 cases of canned peaches have also been seized recently on the recommendation of the Department, the catsup having been shipped by the National Pickle and Canning Co., from St. Louis, Missouri, to New Orleans, where it was seized on October 18, and the canned peaches having been shipped by the Wenatchee Ice Cold Storage and Canning Co., of Wenatchee, Washington, to New Orleans, where it was seized on October 24. It is charged that these products are adulterated in that the goods consist in whole or in part of a filthy, putrid or decomposed vegetable substance.

These cases have not yet come up before the court, but they will be tried in due course when it will be determined whether the charges are justifiable.

SEIZED TOMATOES AND RAISINS.

Two large shipments of Abbsco Brand tomatoes from the James Wallace Packing Co., of Cambridge, Maryland, have been recently seized upon recommendation of the U. S. Department of Agriculture, because it appeared that the goods consisted in whole or in part of filthy, putrid and decomposed vegetable substance. The seizures were made in St. Louis, Missouri, on October 21, 1913. One carload seized consisted of 500 cases; the other seizure consisted of 496 cases.

The Honnor-Gaylord Company, of Clarksburg, West Virginia, shipped 70 cases of raisins to Philadelphia, Pennsylvania, which were seized upon the recommendation of the Department of Agriculture. The seizure was made on October 14, 1913. It was charged that the raisins are adulterated in that they were filthy and wormy.

These cases have not been passed upon by the court as yet.

MUTTON IN UNITED STATES.

The small consumption of mutton in this country has engaged the attention of the Bureau of Animal Industry for some years. That bureau's report for 1911 shows the average per capita consumption of different classes of meat in the United States, the United Kingdom (Great Britain and Ireland), Germany and France.

In annual total consumption of meat (including lard) the United States shows 172 pounds per capita, the United Kingdom 119 pounds, Germany 113, and France 80 pounds. More interesting is the amount of mutton and lamb consumed per head yearly. In the United States this is 6½ pounds or 4 per cent of the total, while the inhabitants of the United Kingdom use mutton and lamb to the extent of 22 per cent of their diet, Germany 2 per cent, and France 11 per cent.

PURE FOOD CRANK.

John R. Thompson, the Chicago financier, and owner of 67 restaurants, has become a national figure as a purveyor of pure food. Elbert Hubbard calls him the "boss pure food crank." Mr. Thompson has established his white-tiled restaurants in a score of the larger cities all over the country. He has 41 restaurants in Chicago alone. All the Thompson restaurants, no matter where located, are supplied as far as possible from Thompson's eight-story "million dollar" bake shop and commissary at Chicago. Thompson was formerly treasurer of Cook county, and astonished politicians by returning to the taxpayers, without legal obligation, $493,000, which had accrued as interest on the county funds in his possession during his term of office, an item which previous county treasurers had put in their own pockets.

Federal Law Supreme

Washington Government Rules Over Commercein Food and Drugs

BY CLOWRY CHAPMAN

Of the New York Bar, Counsel of the Association of National Advertising Managers. From July Issue of "American Industries"

THE two-century-old conflict between federal and state authorities over the regulation of trade and commerce has recently been renewed. Irreconcilable interpretations of the Federal Food and Drugs Act and a similar state law not in harmony with it have grown out of an attempt of the state of Wisconsin to force upon a manufacturer and upon his jobbers and retailers a designation for a food commodity different from that established by the federal government. It has taken a step which, if sanctioned by the courts, would offer each state a means of discriminating against commodities of the manufacturers and jobbers of other states to such an extent as to restrain competition with the commodities of local manufacturers and jobbers, and offer encouragement to the lowering of commodity standards and to the raising of prices—two conditions unquestionably destructive of the general welfare.

What Wisconsin has attempted through its independent regulation of food and drugs, other states, Nebraska and North Dakota among them, have also attempted.

To anyone who is familiar with the conflict between federal and state authorities over the regulation of trade and commerce, it must be clear that if each state could enforce laws and regulations in opposition to those of the federal government, interstate commerce, or the national distribution and sale of commodities, could be so seriously hampered as to be practically destroyed; certainly so if the laws and regulations of the several states should differ in important particulars from similar laws in other states.

Admittedly, the states could prescribe regulations if Congress had not acted. Inasmuch, however, as Congress has acted, the federal law controls in those particulars wherein there is any conflict. *Texas & Pacific Ry. Co.* vs. *Abilene Cotton Oil Co.*, 204 U. S., 426; *Northern Pacific Ry. Co.* vs. *Washington*, 222 U. S., 370; *Southern Ry. Co.* vs. *Reid*, 222 U. S., 424; *Second Employers' Liability Cases*, 223 U. S., 1; *Savage* vs. *Jones*, 225 U. S., 533.

One of the reasons underlying the support given to the passage of the Federal Food and Drugs Act was the belief that the several states would make their laws to harmonize with it.

The manufacturer had long suffered great inconvenience because of the diverse state laws on the subject of adulteration and misbranding. Not only did the laws of the states differ materially from each other, but the constructions placed on similar laws by food commissioners of the different states were inharmonious and antagonistic. Goods properly labaled to meet the requirements in one state were found to be improperly labeled for admission into another state; and indeed until the recent decision of the United States Supreme Court on this subject, manufacturers were put to the necessity of making labels in accordance with the demands of different states.

Like manufacturers, jobbers dealing largely in food and drugs have been so driven by the necessity for uniformity of regulations on this subject that they have pleaded for such uniformity almost regardless of the character of the legislation which might follow. These jobbers receive food and drugs from the manufacturers, and distribute them to the retail trade without reference to state lines. They must conform to the requirements of the national law, and declare themselves entirely willing to do so. They are glad to have a law forbidding adulteration and misbranding, and restricting the opportunities for deception and fraud. But in order that the goods they handle may be sold by their customers in different states it is necessary to comply with the state laws also. Where these differ from the national law and from each other in their requirements, they add to the difficulty, the expense, and the risk of the business in a way that has no rational ground for existence. It is more important to consumers, more important indeed than to the trade in food and drugs, that state laws should be substantially uniform and conform to the provisions of the federal law, because in no other way can there be a systematic and consistent enforcement of the laws or any assurance that their purpose of protecting the consumer against adulteration and misbranding will be attained.

In some of the states the food commissioners have set up wholly impossible standards, much more exacting than those established by the federal law; and apparently required by the local state law, while in other states the commissioners have adopted regulations so lenient that they offer encouragement to local manufacturers to evade the law and render nugatory any attempt to enforce, within the state, the provisions of the federal law.

Nothing but chaos and confusion and bad government can result from such a discordant and opposing condition. It is bad for the public; it is bad for the trade. It would permit of special privileges to manufacturers within the state governed by any one of the state food laws, and discrimination against manufacturers in other states. In states where lax local officers are in control, it would permit them to extend abnormal privileges to the manufacturers in those particular states, to the great disadvantage of the legitimate trade outside of those states. It means that the manufacturers of standaard brands who do a big interstate business could be subjected to all kinds of troubles in complying with the many different laws. One of the commissioners who proposed a uniform state law in opposition to the national law admits that these several state laws cannot be entirely uniform, but must differ in many respects to conform to the different conditions in the different states. However, all states could easily adopt laws conforming to the national law, because the various interests are already complying with that law.

Before the national law was enacted the food commissioners of different states often declared that it was impossible for them to do anything towards uniformity until such a national law was passed, and they gave this very plausible excuse for meeting so often and accomplishing so little toward their avowed object. When the national law was at last enacted the fact was the occasion of much rejoicing among the commissioners.

Pure and unadulterated articles of food and drugs imperatively demand a single uniform rule, operating equally in all states. When labeled under the Federal Food and Drugs Act, they ought to be as lawful in all the states as wheat, corn, hay, cotton, fruit, vegetables, textiles, metals, lumber, leather, coal, minerals, glass, paper, agricultural implements, machinery, hardware and all articles of sound commerce.

When in 1906 Congress passed the Federal Food and Drugs Act, it for the first time legislated on sound articles of commerce, in order to unify and harmonize the multitude of antagonistic state laws on the same subject. If commerce consists in the transfer of goods from the seller to the buyer, which is the practical conception, then for the first time in our history we are confronted by the interesting proposition whether the law of Congress is supreme on a subject of household interest. The consumers whose representatives passed the Federal Food and Drugs Act reside in the states. If a state law is antagonistic to the national law, which law shall reach and protect the household? Evidently, unless the law of Congress is supreme, there can be no food and drugs act for the whole people, because state lines or the original package would cut it off.

For any state to set up its own commercial requirements in the administration of its pure food and drugs act would again prove the failure of the experiments which dazzled the individual thirteen colonies when the colonies engaged in commercial wars, New York levying tribute on the truck vegetables of New Jersey and on the firewood of Connecticut and these colonies retaliating in kind. We sometimes forget that it was this very failure which led to the establishment of our present system of government, with complete power in Congress over interstate commerce, in order to secure harmony and freedom in the exchange of commodities between the various states.

Commerce is like a river; it flows never so smoothly as when it makes its own bed. Patrick Henry pleaded for the transfer from the colonies to the central government of the power over commerce. "Perfect freedom is as necessary to

the health and vigor of commerce as it is to the health and vigor of citizenship."

A product lawfully labeled under the Federal Food and Drugs Act ought to have lawful entrance to the markets of every state of the Union. Nevertheless, two retailers of Wisconsin were arrested in the spring of 1908 at the instigation of an assistant dairy and food commissioner of the state for dealing in "Karo Corn Syrup," by that name, in violation of the state law which required such commodities to be labeled as glucose, and prohibited their sale under any other designation or brand that represents or is the name of any article which contains a saccharine substance. These retailers were convicted, and after successive appeals, the controversy reached the United States Supreme Court. There, under the title of *McDermott* vs. *State of Wisconsin,* it was decided April 7, 1913 (228 U. S., 115), the opinion of the Supreme Court of Wisconsin (143 Wis., 18) upholding the state law, being reversed.

The goods when seized were in the individual tins sold to consumers, which had been removed from the large wooden box in which they had been received by the retailers, when shipped by the jobbers in Illinois. The form of label on these tins had been submitted to the Secretaries of the Treasury, Agriculture and of Commerce and Labor, and the designation "Corn Syrup" as found on those tins had been approved. Nevertheless in spite of this approval and of the testimony of such distinguished chemists as Professor Chandler, of Columbia University, that "the most proper and most truthful name" that can be applied to corn syrup is corn syrup, the officials of Wisconsin insisted that the goods could not be sold or exposed for sale in individual tins so labeled. They urged instead that the containers of the goods should be labeled as the state law required with the designation "glucose." This, too, although there exists a well known and general prejudice against goods of that name, which makes them very much less salable than under the designation of corn syrup, by which they have been long and favorably known to consumers.

The attitude of the state officials, if sanctioned by the courts, would have impaired an investment in good-will, and would have stripped the trade-mark of an essential feature employed in extensive advertising and sales.

In the course of its opinion, the United States Supreme Court, through Mr. Justice Day, said:

That the word "package," or its equivalent expression, as used by Congress in sections 7 and 8 in defining what shall constitute misbranding within the meaning of the act, clearly refers to the immediate container of the article which is intended for consumption by the public, there can be no question. And it is sufficient, for the decision of these cases, that we consider the extent of the word package as thus used only, and we therefore have no occasion, and do not attempt, to decide what Congress included in the terms "original unbroken package" as used in the second and tenth sections and "unbroken package" in the third section. Within the limits of the right to regulate interstate commerce, Congress manifestly is aiming at the contents of the package as it shall reach the consumer, for whose protection the act was primarily passed, and it is the branding upon the package which contains the article intended for consumption itself which is the subject matter of regulation. Limiting the requirements of the act as to adulteration and misbranding simply to the outside wrapping or box containing the package intended to be purchased by the consumer, so that the importer, by removing and destroying such covering, could prevent the operation of the law on the imported article yet unsold, would render the act nugatory and its provisions wholly inadequate to accomplish the purpose for which it was passed. * * *

Conceding to the state the authority to make regulations consistent with the Federal law for the further protection of its citizens against impure and misbranded food and drugs, we think to permit such regulation as is embodied in this statute is to permit a State to discredit and burden legitimate Federal regulations of Interstate Commerce, to destroy rights arising out of the Federal statute which have accrued both to the Government and the shipper, and to impair the effect of a Federal law which has been enacted under the constitutional power of Congress over the subject.

To require the removal or destruction before the goods are sold of the evidence which Congress has by the Food and Drugs act, as we shall see, provided, may be examined to determine the compliance or non-compliance with the regulation of the Federal law, is beyond the power of the State. The Wisconsin act which permits the sale of articles subject to the regulations of interstate commerce only upon condition that they contain the exclusive labels required by the statute is an act in excess of its legitimate power.

It is insisted, however, that, since at the time when the State act undertook to regulate the branding of these goods, namely, when in the possession of the plaintiffs in error and held upon their shelves for sale, the cans had been removed from the boxes in which they were shipped in interstate commerce, they had therefore passed beyond the jurisdiction of Congress, and their regulation was exclusively a matter for State legislation. This assertion is based upon the original package doctrine, as it is said to have been laid down in the former decisions of this Court. The term "original package" had its origin in Brown vs. Maryland, 12 Wheat, 419, in which this Court had to consider the extent of the protection given under Federal authority to articles imported into this country from abroad for sale, and it was there held that (p. 441):

"When the importer has so acted upon the thing imported, that it has become incorporated and mixed up with the mass of property in the country, it has, perhaps, lost its distinctive character as an import, and has become subject to the taxing power of the State; but while remaining the property of the importer, in his warehouse, in the original form or package in which it was imported, a tax upon it is too plainly a duty on imports to escape the prohibition in the Constitution."

That doctrine has been many times applied in the decisions of this Court in defining the line of demarcation which shall separate the Federal from the State authority where the sovereign power of the nation or State is involved in dealing with property. And where it has been found necessary to decide the boundary of Federal authority it has been generally held that, where goods prepared and packed for shipment in interstate commerce are transported in such commerce and delivered to the consignee and the package by him separated into its component parts, the power of Federal regulation has ceased and that of the State may be asserted. * * * In the view, however, which we take of this case it is unnecessary to enter upon any extended consideration of the nature and scope of the principles involved in determining what is an original package. For, as we have said, keeping within its constitutional limitations of authority, Congress may determine for itself the character of the means necessary to make its purpose effectual, in preventing the shipment in interstate commerce of articles of a harmful character, and to this end may provide the means of inspection, examination and seizure necessary to enforce the prohibition of the act; and when section 2 has been violated, the Federal authority, in enforcing either section 2 or section 10, may follow the adulterated or misbranded article at least to the shelf of the importer.

Congress having made adulterated and misbranded articles contraband of interestate commerce, in the manner we have already pointed out, provides in section 10 of the act that such articles may be proceeded against and seized for confiscation and condemnation while being transported from one State, territory, district or insular possession to another for sale, or having been transported, remaining, "unloaded, unsold, or in original unbroken packages," and the subsequent provisions of the section regulate the disposition of the articles seized. To make the provisions of the act effectual, Congress has provided not only for the seizure of the goods while being actually transported in interstate commerce, but has also provided for such seizure after such transportation and while the goods remain "unloaded, unsold, or in original unbroken packages." The opportunity for inspection en route may be very inadequate. The real opportunity of Government inspection may only arise when, as in the present case, the goods as packed have been removed from the outside box in which they were shipped and remain as the act provides, "unsold." It is enough by the terms of the act, if the articles are unsold, whether in original packages or not * * *

The doctrine of original packages had its origin in the opinion of Chief Justice Marshall in Brown vs. Maryland, already referred to. It was intended to protect the importer in the right to sell the imported goods, which was the real object and purpose of importation. To determine the time when an article passes out of interestate into State jurisdiction for the purpose of taxation is entirely different from deciding when an article which has violated a Federal prohibition becomes immune. The doctrine was not intended to limit the right of Congress, now asserted, to keep the channels of interstate commerce free from the carriage of injurious or fraudulently branded articles and to choose apporpriate means to that end. The legislative means provided in the Federal law for its own enforcement may not be thwarted by State legislation having a direct effect to impair the efficient exercise of such means.

In this opinion, which is the more noteworthy because it depends upon no citations of precedents, and is rather a reasoned, seasoned concept of conditions as they are today, the court has swept away the provincialism of state lines and given a security to trade and commerce in keeping with the stability and the breadth of a nation which has become a world power. The opinion really indicates a protection from state interference much greater than was required in the case at hand. It indicates that federal authority not only extends to the goods when in the package, the unit package removed from the shipping box or other container, and which holds the goods as they reach the consumer, but that the federal authority also extends to the goods upon their removal from the package, if unsold.

That many articles are readily identifiable in these later days, after being removed from their packages, is a matter of common knowledge. The presence of trade-marks, impressed or stamped or otherwise affixed to articles such as crackers, candy and chocolate, makes identification most certain. In those instances where trade-marks cannot, in the nature of things, be affixed to the articles themselves, there is often such an individuality in the product as to make its identity certain, as in the case of "Shredded Wheat Biscuit," "Triscuit," "Grape Nuts," "Puffed Rice," "Puffed Wheat," etc., each of which is made with machinery and appliances confined to one manufacturer. Other articles not so individual in form, composition or structure, are identifiable by mechanical or chemical analysis. When identifiable they are subject to federal regulation freed from state interference, whether in the original package, or any other container, or even when loose, away from a container.

The doctrine long associated with the term "original pack-

age" grew up in a different age than this, when trade-marks, labels and packages, as we have come to be familiar with them, were unknown, and when the articles in a given line or class of merchandise differed little, if at all, from other articles in the same line or class. That was the day of staples; this is the day of specialties. That was the day, too, when each little community was more or less a world unto itself; when there were no great factories in this country, and when modern advertising and distribution were unthought of. There was little or no incentive to strive for supremacy. Trade was often monopolized, within community limits; and being monopolized there was no particular attempt to differentiate the articles of one maker from those of another maker elsewhere. But even so, the Supreme Court of that early day did not indicate that articles removed from their packages were necessarily beyond identification. Note the qualifying "perhaps," which we have italicised, in this extract from Mr. Chief Justice Marshall's opinion in *Brown* vs. *Maryland,* where the term "original package" had its origin:

"When the importer has so acted upon the thing imported, that it has become incorporated and mixed up with the mass of property in the country, it has, *perhaps,* lost its distinctive character as an import, and has become subject to the taxing power of the state." The chief justice does not say that because the thing imported is mixed up with the mass of property in the country its distinctive character or identity is lost; he merely says that under such a condition, "perhaps" the thing imported has lost its distinctive character. Note, too, that he does not say that the thing imported has lost its distinctive character, simply by being removed from the original package. He says that, while remaining the property of the importer, in his warehouse, and either in the original package or in the original form in which it was imported a state tax upon the property is illegal.

Does exclusive federal control over food and drugs in interstate commerce extend no further than while the property remains in the warehouse of the importer? In the recent case before us, the court says that the federal authority may follow the adulterated or misbranded article *at least* to the shelf of the importer. "It is enough, by the terms of the act," continues the court, "if the articles are *unsold,* whether in original packages or not."

"The doctrine of original packages," concludes the opinion of the court, "had its origin in the opinion of Chief Justice Marshall in *Brown* vs. *Maryland,* already referred to. It was intended to protect the importer in the right to sell the imported goods which was the real object and purpose of importation. To determine the time when an article passes out of the interstate into state jurisdiction for the purpose of taxation is entirely different from deciding when an article which has violated a federal prohibition becomes immune. The doctrine was not intended to limit the right of Congress, now asserted, to keep the channels of interstate commerce free from the carriage of injurious or fraudulently branded articles and to choose appropriate means to that end. The legislative means provided in the federal law for its own enforcement may not be thwarted by state legislation having a direct effect to impair the efficient exercise of such means."

If a state has the right to impose upon a manufacturer, a jobber or a dealer an obligation to brand goods in a manner prejudicial to his interests and so increase the severity of the federal law, clearly it also has the right to diminish it, or to nullify it.

During the years that litigation arising from the conflict between federal and state authorities regarding the labeling and sale of Karo Corn Syrup has been pending cases similar to *McDermott* vs. *State of Wisconsin* have been up for decision by state and federal courts. A leading case, entitled "In the matter of Ornan J. King," and others, before the Supreme Court of Nebraska, grew out of the arrest and conviction of retailers of Nebraska for selling food products in unit or individual packages which after removal from the bundles or larger packages which held them during shipment from the manufacturer, jobbers or selling agents, failed to show a special branding requirement as called for by the state law.

The provision of state law directly in point declares an article to be misbranded "if sold for use in Nebraska and in package form, other than canned corn, if every such package, as provided and named below, does not bear a correct statement clearly printed on the outside of the main label, of the contents and also of the net weight or measure of the contents exclusive of the container, viz.: all dairy products, lard, cottolene or any other article used as a substitute for lard, wheat products, oats products and corn products and mixtures, prepared or unprepared; sugar, syrup and molasses, tea, coffee and dried fruit; provided, however, that the provision shall not apply to packages put up by the retailer nor to packages on hand by any retailer at the time of taking effect of this act."

With this case, as in *McDermott* vs. *State of Wisconsin,* has come the controversy over what now constitutes an original package and the added one regarding the right of a state to establish a standard of value for a package food in interstate commerce in conflict with the standard fixed by federal law. The principle involved in this latter controversy is undoubtedly covered by the decision in *McDermott* vs. *State of Wisconsin,* and with very good reason. To hold otherwise would be to make a state statute rather than a federal statute the supreme law of the land. It would turn back the wheels of progress and discourage improvements in merchandising which operate for the consumer's benefit. It could hardly be said with good reason on the basis of the facts that the operation of the federal law covers the bundles or large packages containing the unit or individual packages, and not the individual packages themselves, and that therefore the shield of the Constitution protects the hotelkeeper and the restaurant keeper because they buy a dozen packages put up in paper bundles, and that all private families who are compelled either for convenience or by necessity to buy by the single package, shall not have the same constitutional protection. The protection guaranteed by the Constitution applied to commerce reaches the humblest individual by recognition of the principle that it is the commodity which is the article of interstate commerce, and not the paper bundle, which is nothing more nor less than an outer case or cover. It is not the suit of clothes that makes the citizen; neither is it the package that makes the commodity of interstate commerce.

Commerce is a complete conception, not a "witty diversity of the law of sales." It covers the whole transaction. It represents a single unit of action. When Congress acts on commerce, it acts over, into and through the last syllable of the word, and over, into and through all the facts included within its meaning. Commerce means the entire movement from producer to consumer.

Where a subject is of national concern and susceptible of but a single uniform rule of regulation, such as commerce in food products, the power to regulate must come from the whole people through their representatives in Congress, and not from a part of the people as represented at a state capitol. This is now the supreme law of the land.

BACTERIAL COUNT IN MILK.

The Bureau of Chemistry of the Department of Agriculture has just issued a bulletin which sets forth:

"All statements that the Department of Agriculture has abandoned or will abandon the bacterial examination of milk shipped in interstate commerce as a means of determining its cleanliness and fitness for human consumption are without foundation. While the department has not fixed any specific bacterial count as a standard in the enforcement of the food and drugs act, it does use bacterial examinations in reaching its conclusions, and will continue to use these methods, irrespective of what action any association may take.

"The only change in the policy of the department has been to discontinue basing prosecution upon a bacterial examination of a single specimen. It now collects a number of samples at different times and examines them. If the bacterial examination shows the milk is not clean but is not a serious menace to health, and the bacterial deviation from clean milk is a small one, the department, through the Bureau of Animal Industry, endeavors to teach better methods. If this fails, the department prosecutes the offender."

This statement of the position of the national government commends itself as being fair to consumer and producer.

HEADACHE REMEDY.

A fine of $50 was imposed on the shippers of a so-called headache remedy labeled "Jaquequina," according to a Notice of Judgment just issued by the Department of Agriculture. The shipment was made by the Sidney Ross Company, a corporation of New York City, from the State of New York into the State of California. The product was labeled in the Spanish language. Misbranding of the product was alleged because the label failed to state the quantity or proportion of acetanilid contained therein. Analysis showed it to contain about 230 grains per ounce.

Bouillon Cubes Not Concentrated Meat Essence

Home-Made Broth More Nutritious and Economical Than the Commercial Meat Extracts

THE belief of many people that bouillon cubes are concentrated meat essence and of high nutritive value has been shattered by a recently issued bulletin of the Department of Agriculture, which says that while they are valuable stimulants or flavoring agents, they have little or no real food value and are relatively expensive in comparison with homemade broths and soups. This bulletin (No. 27) compares the contents and food value of bouillon cubes with meat extracts and home-made preparations of meat.

The ordinary commercial bouillon cubes, according to this bulletin, consist of from one-half to three-fourths table salt. As they range in price from 10 to 20 cents an ounce, purchasers of these cubes are buying salt at a high price. The cubes do contain a small amount of protein (muscle-building material), in addition to their stimulating properties, and the makers of most of the cubes make no advertised claim that they are concentrated beef broth or essence. However, many housewives believe that they are, and that they possess high nutritive value, especially for invalids. This is not the case. The fact that the cubes sell for from 1 to 2 cents each, and each cube makes a cup of broth, misleads the housewife into believing that she is securing meat extract cheaply, when really she is buying it in an expensive form.

According to analyses of these cubes, besides the common salt, which constitutes from 49 to 72 per cent of the total weight, the amount of meat extract ranges from 8 per cent in the poorer brands to but 28 per cent in the very best. The third important ingredient is plant or vegetable extract, which constitutes from 3 to 30 per cent. This plant extract is useful because of its flavoring properties, but has slight, if any, nutritive value. The following table shows exact analyses of ten different bouillon cubes offered on the market:

Cube No.*	Source of manufacture.	Salt, per cent.	Water and fat, per cent.	Approximate amount of meat extract present, per cent.	Approximate amount of meat extract present, per cent.
1.	United States....	62	5.25	28	4.75
2.	Germany	65	9	23	3
3.	United States....	65	8	18	9
4.	United States....	67.5	5	17.8	9.7
5.	United States....	59.2	7	17.8	16
6.	United States....	49.25	5.75	15.33	29.66
7.	United States....	53	4.1	14.6	28.3
8.	Germany	72	5.5	14	8.5
9.	United States....	72.5	8.5	8.33	10.92
10.	United States....	72	8.5	8.17	11.33

*Cubes arranged in table in order of content of meat extract.

The Department's meat chemist has carefully analyzed semi-solid meat extracts, fluid meat extracts, and commercial meat juice, which are offered on the market to the American public, in addition to the bouillon cubes. He has also conducted experiments in making home-made beef broth and meat and vegetable soup. A compilation of the relative costs of commercial and home-made meat preparations has resulted in the following table:

Substance.	Ounces of meat extract obtained for 10 cents.
Best grade bouillon cubes	1/ 8
Cheapest grade bouillon cubes	1/12
Best grade semi-solid meat extract	1/ 4
Cheapest grade semi-solid meat extract	1/ 3
Best grade fluid meat extract	1/ 5
Cheapest grade fluid meat extract	1/ 5
Commercial meat juice	1/10
Home-made beef broth	1/ 6
Home-made meat and vegetable soup	1/ 2

Both the bouillon cubes and the meat extracts are stimulants and flavoring agents, but have only a slight food value and are more expensive than home-made soups. While an actual cup of bouillon prepared from a cube costs only one or two cents, and the same sized cup of home-made meat broth costs approximately 4 1/3 cents, the former is largely salt and water, without the high food value that the latter might have, particularly for children and invalids. The ingredients of each are given here:

Cup of bouillon made from a commercial bouillon cube:	
Water, per cent	97.78
Salt, per cent	1.48
Plant extract, per cent	1.04
Meat extract, per cent	.60
Fat	a trace
Cup of home-made broth:	
Water, per cent	95.42
Fat, per cent	1.72
Meat and meat extractives, per cent	1.21
Salt, per cent	1.07
Undetermined, per cent	.57

Although the cost of making the beef broth, using expensive meat, is about 4 1/3 cents per cup, the broth contains all the fat of the meat, which is a valuable food, and which is practically eliminated from ordinary commercial meat extracts. Also, the meat, after the soup is made, is available for the preparation of hash. The cost could be greatly reduced if the meats are purchased at lower priced markets or if less expensive cuts are used, and the home-made broth would still have much greater food value than the bouillon.

A RECIPE FOR MEAT AND VEGETABLE SOUP.

The bulletin recommends a wholesome meat and vegetable soup which will furnish enough for a family of five, at a cost of approximately 16 cents. This may be made according to the following recipe:

Ingredients and approximate cost (price actually paid by Department chemist)—

One soup bone, weighing about 24 ounces (1/3 meat), 10 cents.

After being washed, it should be placed in a large kettle with three pints of cold water and heated for three hours, when the bone and meat should be removed.

One-fourth of a small head of cabbage, one onion, one carrot, one large potato, two small tomatoes, a little flour, seasoning—6 cents.

Chop these vegetables and add to the soup. Boil the mixture for one hour, thicken slightly with a little flour and season with salt and pepper.

The home-made soup made according to the above receipe contains in addition to meat extractives, gelatin from the bone, some of the food elements in the vegetables, and a large proportion of the fat and meat of the bone.

While the purchaser of semi-solid meat extracts obtains two or three times the amount of meat extract that he does by spending the same money for bouillon cubes, these extracts also are not concentrated beef according to the analyses made by the Department's chemist. They contain from 45 to 65 per cent meat extract, 15 to 25 per cent water, 5 to 20 per cent salt, and 10 to 20 per cent of ash other than salt. The cost of meat extracts at retail is 45 cents for 2 ounces or more.

Fluid extracts of meat are even more expensive than the semi-solid meat extracts, consisting of at least one-half water, but selling at about the same price, volume for volume, as the semi-solid extract which contains more than 25 per cent of water.

Commercial meat juice preparations cost from 50 to 75 cents for 2 ounces of liquid and are frequently merely dilute solutions of the semi-solid meat extracts. When the amount of food actually present in them is considered, they are expensive articles of diet. In making them, the protein (muscle-building material) which is pressed out of meat and is present in freshly made meat juice is entirely removed by the manufacturer in order to make a product which may be kept a long time without spoiling. Therefore, the most valuable food elements of the meat juice usually do not reach the consumer in these commercial products.

The bulletin contains cuts and tables illustrating the relative contents and food values of bouillon cubes, meat extracts and home-made preparations, and may be had on application to the Division of Publications, U. S. Department of Agriculture, Washington, D. C.

Young Farmers to Visit Washington

Champion Potato, Corn and Tomato Growers to Be Entertained at the Federal Capital

WHEN the Canning Club girls and the Corn Club boys from the Southern states arrive in Washington on the 11th of December, there will be boy and girl representatives of the potato, corn and canning clubs of the Northern and Western states to join them in receiving diplomas from the Secretary of Agriculture. They will also be shown the sights of the capital, their expenses being paid by individuals and local or state organizations interested and not by the Department.

There will be 12 Canning Club girls from as many of the Northern and Western states and 15 or 20 boys, champion winners of the potato and corn clubs. Six states sending "potato boys" are Massachusetts, Ohio, Utah, Iowa and Michigan. Colorado will send a "Sugar Beet Club" boy, who will be the champion sugar beet grower of the state and the sole representative of the club work which has recently been started in this line by the Department of Agriculture.

The work of the clubs which the Department has encouraged in the various states to interest the younger generation in agriculture has been going on in the Northern and Western states for only about a year and a half. The work was started sooner in the Southern states, as these were considered to have a greater economical need for it. Also the General Education Board of New York City offered to help out the work in the South in order to remedy bad agricultural conditions, and this board has materially aided in inaugurating clubs to interest boys and girls in growing corn, tomatoes and cotton.

In the meantime an urgent demand arose in the northern and western states for similar co-operative work for young people. The successful club work in the South furnished an impetus for a nation-wide work and the youth of the North and West have taken up the national club work with much enthusiasm. In the co-operative arrangement with the southern states, each state had a leader in charge of the club work whose expenses were paid half by the Department and half by the local organizations interested. The demands of the North and West have been so urgent that eight states are now waiting to pay half the expenses of this club work, but the Department of Agriculture has not at present the funds to furnish the other half. However, the work is continually being pushed into new territory as the funds become available.

The individuals and local organizations throughout the North and West have been most enthusiastic regarding the work of the boys and girls. Senators and representatives sometimes aid the work by generous contributions. Last year five congressmen from Illinois alone each furnished successful boy growers of corn with a trip to the capitol. Other congressmen from the New England states, New York and West Virginia brought club champions to the capitol.

As an example of the interest taken by individuals, the work of a well-known society leader of Cleveland, Ohio, may be cited. She has devoted from three to four months of her time during the past year to organizing and promoting girls' canning clubs. She has paid visits to the 126 girls in her county who have taken up the work and among the girls who will shortly visit Washington are two champions of that district who come at her expense. Her two daughters, aged 14 and 16 years, are among the club members, and, although not competing for a prize, they have done the work of raising tomatoes on a one-tenth acre plot and canning the products.

In districts where corn does not grow readily, but where there are plenty of young people eager to grow something, it has been found that potato clubs are more satisfactory than corn clubs. An organization of boys and girls was started last year in Massachusetts to grow potatoes and there are now 18,000 young people enrolled in potato work, most of them being boys, as the girls are encouraged rather to take up tomato raising and canning. Some girls, however, have shown interest in potato growing and have done particularly well in manufacturing home-made potato starch out of the unmarketable culls of the vegetable.

Potato club work is going on in Idaho, Iowa, Colorado, Utah, Wyoming, Upper Michigan, in parts of the Dakotas, in Minnesota and in Ohio. The young people engaged in potato growing, range in age from 10 to 18 years. The basis on which the awards are made for the potato champions who will go to Washington is as follows:

(1)	Greatest yield of potatoes per one-eighth acre.....	40
(2)	Best showing of profit on investment.....	30
(3)	Best exhibit of one peck of seed potatoes.....	15
(4)	Best history on "How I Made My Crop of Potatoes"	15
	Total score	100

Besides showing good potatoes, well developed ears of corn and rows of attractive jars of well canned tomatoes, these young people have shown a surprising amount of pluck and perseverance in meeting setbacks and unforseen disasters.

Illustrated booklets which the various young agriculturists have made giving an account of "How I Made My Crop" contain many stories indicating that Young America is not exclusively bent on city life but finds much for enjoyment and interest on the farm.

A girl in northern Ohio tells in her account how she made a net profit of $10.41 on her tomato work during the past season. A note at the bottom of her story says she "had 80 bushels of green tomatoes left." The unwritten part of her story is that these 80 bushels froze on the vine because an early frost following excessive dry weather destroyed half the tomato crops in her vicinity.

The champion girl gardener and canner of New Jersey put up over 1,000 quart cans of tomatoes this year. Records are still coming in from all over the country and interesting accounts are being received every day.

MILK GERM COMMON.

Dr. Paul G. Heinemann of the University of Chicago took exceptions at the recent Dairy Show to the popular idea that the presence of streptococci in milk carries with it a lively possibility of disease for the humans who consume the milk. He first set forth that these germs are found in the digestive organs of men and animals and on the skin and in the hair and even in the air and therefore are extremely likely to gain access to milk—in fact that there is practically no milk which does not contain them.

"We are forced to admit that our present knowledge of streptococci is too meager to permit final classification and dogmatic opinion," said Dr. Heinemann. "The streptococci found in milk have shared in the confusion. Up to relatively recent years milk has been condemned when streptococci were found. Today we know that milk commonly contains streptococci and that the ordinary process of milk souring is due in most cases to the activities of a streptococcus. In buttermilk there are several hundred million streptococci in each thimbleful. Who will say their presence constitutes danger to the consumer?"

ARSENIC IN CONFECTIONERY.

A certain confectionery product labeled "nutty fudge." shipped from Ohio into Illinois by The Max Glick Co., Cleveland, Ohio, was alleged to be adulterated and the shipper was fined $25.00 and costs, according to a recent Notice of Judgment issued by the U. S. Department of Agriculture. This product was labeled "Glick's 30 Lbs. Not Assorted Trade 'Famous' Mark. Iced Nutty Fudge." "Glick's 30 Lbs. Famous Assorted Nutty Fudge." "Wilson Groc. Co., Peoria, Ill., Big 4."

Analysis showed that there was sixteen hundredths per cent resinous coating, and that this coating contained 7 parts per million of arsenic.

Illinois food inspectors have been making a campaign among the cheese factories and creameries. The inspectors found a number of places where the surroundings are insanitary. These were ordered cleaned up. After notifications to clean up, prosecutions will follow if necessary.

Perils of the Coffee Planter in Mexico

Frank Zumwalt, an American, Consumes Entire Month in Making His Way from Interior to Seaboard, His Escape Being a Perilous One and Attended by the Constant Risk of Capture

PREYED upon by two warring factions in Mexico, his horses, stock, coffee and provisions a bone of contention between the Federal and rebel troops, spending weary days and sleepless nights watching for the approach of soldiers who came through the moutain passes, spreading devastation and terror upon friend and foe alike, Frank Zumwalt, of Florida, recently returned from Isasi, Mexico, having been more than a month on the way. Mrs. Zumwalt, accompanied by the children, was sent to Miami two months prior to her husband's departure, so they escaped many of the privations and horrors which later on befell Mr. Zumwalt.

With a few others, Mr. Zumwalt escaped from the valley in which was the three thousand acre coffee plantation owned by him, and where he employed, in times of peace, as many as three hundred peons; and upon foot, upon hands and knees scaling precipitous passes, and on horseback, the party made its way to the nearest railroad station at Monterey. For days they were compelled to hide and aften at night they would proceed in cautious silence for fear of capture, being momentarily in danger of having to serve with rebel or Federal troops alike, or still worse, of falling into the hands of the nondescript bands who roved and preyed at will, the slightest gesture being interpreted as a hostile one and a signal for torture that would put the Apaches to the blush.

The railroad, says, Mr. Zumwalt, was guarded almost the entire way from Monterey to Tampico by Federal troops, and always a troop train preceded the passenger train in order to protect it against capture or derailment. Often, on the way, they saw evidences of the perilous times in the overturned trains, burnt and scorched, or splintered to atoms at the foot of some precipice where there was a sharp turn of the road, and with all the fearsome accompaniments in the nature of bones, charred clothing, or circling buzzards. The bodies of the fallen soldiers were at night preyed upon by human ghouls, who robbed them of all valuables. Everywhere were evidences of murder, rapine and pillage. Whole villages were converted into charnel piles, or the suburbs converted into graveyards after a battle, one of which occurred on the edge of a ranch where the party had taken refuge. Sleep, rest of any sort, was out of the question while the battle lasted, the shooting being followed by fearful calms which were almost worse because of the uncertainty regarding the combatant's whereabouts. After such a period of quiet there would suddenly break out an unearthly period of yelling, often in the middle of the night. This, it is said, was coused by the wounded, who were put out of their misery as the easiest and most feasible method of taking care of them. Owing to the haste and shifting conditions the bodies were buried in shallow pits, it being no uncommon thing to see hundreds of arms and legs sticking upward through the sand.

L. A. Moffett, the pioneer Mexican coffee man in Miami, came from Mexico about a year ago. His experience, in many ways, was similar to that of Frank Zumwalt. With the constant shift of the political horizon he found it impossible to continue operations in Mexico, luckily for him and his family leaving before things became absolutely dangerous.

"The instructions from the United States Government were to invoice plantations and get out, if we were in a troubled zone," he says. "Of course, that was the last of it —as well expect to get blood from a turnip as to expect money from either Government. It is just as hard to collect from our Government as it is from the Mexican faction in power. The 'invoice' did us as much good as the receipts given us by the rebel 'Generals' for stolen corn, coffee, cattle or provisions.

"Our consuls should be given more power," he says. "At least as much as other nations. Our consuls seem interested principally in commercial matters—possibly on a commission basis? They do some good trying to get the merchants to buy American goods, but spend most of their time getting details regarding whom you buy from, how much and how often. An American in trouble gets little help from a man who is trying to please or toady to Mexican merchants. It is an entirely different matter with the consuls from Great Britain and Germany. For one thing, they are usually there to stay as long as they are competent, while our consuls are subject to recall at the first change at the White House. Another thing," he goes on to say, "the British or German consul is prepared for the job, and speaks Spanish or Mexican. Our Down East nasal twang vernacular is usually the only 'furin' language spoken by an American consul, and it's hardly the language with which to speak to a Mexican."

Mexico, according to Mr. Moffett, will be an Eldorado for the American planter of spices and coffee if things ever quiet down or come to a favorable head with the United States at the helm. Labor is cheap and plentiful. Coffee improves with altitude up to a height of 5000 ft., getting smaller and better as one goes up. In Mexico, plants from an altitude of 3,000 feet and down must be shaded by leaving some virgin timber. Higher than that coffee is planted in the open. Coffee needs lots of rain, but must be planted on a slope in order to avoid drowning. The right time to plant in Mexico is in February or June; other times may seem as good, but the correct time means, he says, fully a year saved.

On the big plantations coffee is pulped either the same day or the day after it is picked, as they usually wash or "pulp" all coffee, contrary to the custom of the small planter, who lacks the machinery, yet has more time and space in which to spread the crop in order to "seal" it by drying. Washed coffee is quoted ½c higher than unwashed, yet the cup quality of the latter sealed coffee should really warrant 2c higher. Washed or pulped coffee dries in the sun in four or five days; sealing coffee by drying the pulp around it takes a month of favorable weather, though Mr. Moffett has seen it lay in the rain for two months or longer without being damaged, the danger of heating being avoided by spreading it thinly.

It is customary, among Mexican planters who wish the best for themselves, their neighbors, or for local sale, to save coffee which has been dried in the pulp two years or more. Because of this very lack of machinery and the consequent sealing in the pulp, the coffee brought from small planters is in most demand. It is often full of stones, however, as the natives dry it on the ground.

The juice from the pulping runs like cider and tastes much the same. During pulping time the natives come on mules for miles with five gallon demijohns strapped on either side, for the juice, as they make vinegar of what they do not drink.

It is a difficult matter to keep the American children, as well as the Mexican ninas, from eating the pulp of the green coffee berry while it is on the tree, though it makes them extremely sick. Birds and the Mexican black squirrels play havoc in the coffee crop or cafetal (grove). They destroy quantities of the berries in order to devour the pulp, piling the pulped coffee in all sorts of inconceivable places. The coons in Mexico come in droves of 30 and even 50 and 60 and, chattering like so many monkeys, destroy the product of a season in a short while.

Mr. Moffett once treed a horde of coons in a single tree at the edge of the cafetal. In attempting to escape they all tried to cross a solitary vine over the head of Mr. Moffett, who shot straight up, with the result that he cut the vine, causing it to rain coons all over and about him.

Mr. Moffett, who has plantations in the States of Puebla and Vera Cruz, says that the great fear of the American planter now in Mexico is intervention. It will result in all sorts of atrocities on the part of both Federal and rebel troops, as well as unspeakable outrages from the hands of the wandering bands, who live by plunder.

W. W. Moore, an American planter who recently came from Mexico, saw 11 rebels hanging to one tree on strands of barbed wire in Torreon. The writer, during the Madero rebellion, saw troops in the bay of Campeche, loaded onto a sloop, tied hand and foot, like sacks of grain, for the army of Diaz.—*Simmons' Spice Mill.*

UNSWEETENED EVAPORATED MILK.

By C. A. A. Utt.

(Assistant Chemist, Kansas State Board of Health.)

We have had considerable difficulty in the fat determination of unsweetened evaporated milk by the Babcock method. To obtain good results directly on the milk, without modification in the manipulation, is an impossibility. Working on the diluted sample does not give satisfactory results. The Gottlieb method gives fair results, but it has been shown (Bulletin 134, Indiana Station) that these results are uniformly low.

The method advocated by the Indiana Experiment Station in Bulletin 134 gives good results, but they are not always uniform, much depending upon the milk with which one is dealing. The amount of acid, 17.6 c. c., given in the method is too much in many cases.

The following method, we have found, gives uniformly good results on all kinds of unsweetened evaporated milk.

I. Mixing the sample.—The sample is mixed by shaking, pouring and stirring; some globules of fat persist in staying unmixed; by looking across the surface of the milk, the eye in such a position that the light is reflected to it from the milk, one can easily detect these small chunks of fat and see whether the sample is homogeneous. If these chunks of fat will not mix, warming slightly (not over 40° C.) will help, or sometimes a sample will be met with that needs a very small pinch of caustic soda to aid in emulsifying the fat.

II. Fat.—Weigh 4.5 grams of the well mixed sample into a 10 per cent Babcock milk bottle. Add commercial sulphuric acid (s. G. about 1.8) of the same temperature, mixing the two with a whirling motion until a dark chocolate color is produced. From six to eight cubic centimeters of acid are usually necessary. Place the bottles in boiling water and heat for fifteen to twenty minutes. Remove and let stand until nearly cold. Fill the bottle two-thirds full of hot half-strength sulphuric acid (1 volume of water to 1 volume of the concentrated acid), and mix well. Place in the centrifuge and whirl five minutes. Fill to neck with hot half-strength sulphuric acid and whirl three minutes. Add hot water to bring the fat column into the neck of the bottle and whirl two minutes. Read at 120° F. to 125°F from the bottom of the column to the extreme top of the meniscus. The reading multiplied by four gives the percentage of fat.

Notes on the method.—1. In the condensing process the casein becomes toughened so that it is extremely difficult to get it dissolved in the sulphuric acid. The heating in the bottle with the sulphuric acid, and subsequent standing, aids in this process. There is little danger of charring if the correct amount of sulphuric acid is added.

2. If hot water is added before whirling, a precipitate forms in most cases that interferes with the determination. The addition of half-strength sulphuric acid prevents this.

3. Four and one-half grams was found to be the best amount with which to work.

4. The results obtained by this method have been very gratifying, giving uniformly good, clear readings that check well.

III. Total Solids.—Weigh 1 gram of the well mixed milk into a tared aluminum milk dish. Add 25 c. c. of water and evaporate to dryness on the steam or water bath. Dry to constant weight in a steam or water oven.

This method was found more satisfactory than making up a diluted sample of known strength and obtaining the sample for solids from it. It is simple and easy to manipulate.

PINK BOLL WORM OF COTTON.

I, Beverly T. Galloway, Acting Secretary of Agirculture, under authority of the Plant Quarantine Act, do hereby declare that notice of Quarantine No. 8, on the pink boll worm of cotton, effective on and after July 1, 1913, and which forbids the importation into the United States of cotton seed of all species and varieties and cotton seed hulls from any foreign locality and country, excepting only the locality of the Imperial Valley, in the State of Lower California, in Mexico, is hereby so amended as to permit the importation of cotton seed (including seed cotton) and cotton seed hulls from the States of Nuevo Leon and Tamaulipas, Mexico, for manufacturing purposes only, under the following regulations:

Regulations governing entry from the States of Nuevo Leon and Tamaulipas, Mexico:

Cotton seed (including seed cotton) and cotton seed hulls grown in the Rio Grande Valley in the States of Nuevo Leon and Tamaulipas, Mexico, will be admitted into the United States only under special permit through the port of Brownsville, Texas.

Persons contemplating the importation of cotton seed (including seed cotton) and cotton seed hulls from the States of Nuevo Leon and Tamaulipas, Mexico, through the port of Brownsville, shall first make application to the Federal Horticultural Board for a permit, stating in the application the name and address of the exporter, the locality where grown, and the name and address of the importer in the United States to whom the permit is to be sent.

A bond must be furnished by the importer to the customs officials at Brownsville in the amount of $5,000 that such cotton seed (including seed cotton) and cotton seed hulls will be used for manufacturing purposes only, and that they were produced in the states above mentioned. This bond is to cover the shipping season of 1913 and will limit the shipment of such cotton seed (including seed cotton) and cotton seed hulls to use in local oil mills at Brownsville, Texas. Strict compliance with the conditions of the bond will be required.

While no inspection of cotton seed (including seed cotton) and cotton seed hulls at the port of Brownsville as a condition of entry will be required, the Federal Horticultural Board will exercise the right of inspection of these products and their use on the premises of the mill as often and whenever it may deem such examination necessary to satisfy itself that the conditions imposed are being fulfilled.

Any violations of these regulations will be dealt with in accordance with the penalties provided for in Section 10 of the Plant Quarantine Act.

Done at Washington this 18th day of August, 1913.

Witness my hand and the seal of the United States Department of Agriculture. B T. GALLOWAY,

(Seal) Acting Secretary of Agriculture.

USE OF HEROIN SPREADING.

According to information gathered by the U. S. Department of Agrictulture, there has been a sudden and very significant increase in the use by persons with a drug habit of the little known but very dangerous drug called "heroin." The sales of this drug have recently increased greatly, particularly in those states which have rigid laws preventing the indiscriminate sale of morphine and cocaine. Investigation of the subject establishes the fact that many drug victims who formerly used morphine and cocaine, and who under the new laws find it difficult to obtain these substances have begun using heroin, the sale of which is not as yet as carefully restricted under state laws. The drug is said to be fully as dangerous as morphine, and by many is held to be much worse, for the reason that it occasionally kills the victim outright, and its habit is far harder to overcome than the use of the other drugs. The department, pending further action, specially warns all people who are unfamiliar with the drug to avoid all preparations containing the substance, and to take it only on the prescription of reputable physicians.

Heroin, the consumption of which by drug takers has recently increased so markedly, is a derivative of morphine, the opium alkaloid. It is known in chemical parlance as diacetyl morphine, and it is frequently found as a constituent of a number of proprietary drugs. Its use seems to be especially notable in parts of Pennsylvania. This year the coroner's office in Philadelphia county has held inquests on five sudden deaths from heroin poisoning. In each case the victim was a heroin fiend, and was on a heroin debauch, and took an overdose. The substance apparently is far more dangerous for drug users than morphine or cocaine. Drug fiends apparently are able to consume relatively large quantities of the other two drugs, but any sudden and material increase in the amount of heroin taken is very liable to prove fatal. As indicating the wide sale of this substance, it is known that one druggist in Pennsylvania whose store was located in an undesirable section of his city has been buying heroin tablets in 25,000 lots.

The labels of proprietary and other medicines purchased by laymen should be carefully scrutinized for a statement which is required by the National Food and Drugs Act of the quantity or proportion of heroin, or any derivative or preparation thereof.

The word "heroin" on any label should be regarded as a danger signal, according to the experts of the Department.

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NEW YORK

Annual Report of Secretary of Agriculture

DAVID F. HOUSTON, Secretary of Agriculture has published his annual report for the year 1915. The report, which contains only 58 pages, differs from previous reports in that, instead of merely reviewing the agricultural situation, it presents in summary many broad economic questions. Throughout the report strong emphasis is placed upon co-operation between the Department of Agriculture and other Federal departments and the State agricultural agencies to promote co-ordination and eliminate duplication of effort.

Certain reorganizations have been effected in the Bureau of Chemistry looking toward more effective administration of the Food and Drugs Act and to greater constructive technological help to manufacturers in avoiding waste, reducing cost of manufacture and help them develop purer products which will comply with the law. The country will be divided into several districts each under the direction of a competent official. All branch laboratories and food inspectors will be under single direction and will work together instead of being independent of each other, a condition which led to lack of co-ordination in the past. Certain branch laboratories will be consolidated because the work can be done more effectively and more cheaply in the larger central laboratories which are provided with complete equipment and specializing chemists. Effort will be made to make the act more of a hygienic measure through increased attention to milk, eggs, oysters and fish, which are subject to organic contamination and may become carriers of disease.

To bring about greater harmony in the work of the State food officials and the Department in food and drug work, the Secretary called a conference which was attended by representatives of 32 states, the District of Columbia, and Porto Rico. It is believed that this conference has promoted much better understanding and will lead to a number of specific improvements. An office which will act as a clearing house of information among the state and federal food and drug officials will be established to prevent duplication of work and promote harmonious action and co-operation. Experience has revealed certain weaknesses in the food and drugs act—notably the lack of provision for legal standards, and its failure to apply to certain external remedies. The Secretary will ask that authority be granted to prepare and submit such amendments to this law as may be deemed needful to safeguard the health of the people, establish standards, better define drugs, improve the food supply, and promote uniformity in the matter of food legislation.

Prosecutions under the Food and Drugs Act and other regulatory statutes will be expedited and made still more effective through co-operation with the Department of Justice whereby the solicitor will prepare cases in the form of criminal informations and place at the service of the U. S. District Attorneys in the trial of cases the Department's attorneys who are thoroughly familiar with the highly technical and technological aspects of many of these causes. Under the Food and Drugs Act, 1,408 cases were transmitted to the Department of Justice. Fines amounting to $23,463.50 were imposed in 596 criminal cases, and decrees of condemnation and forfeiture entered in 365 other cases. Eight hundred and sixty-seven Notices of Judgment were published. The courts have evinced a disposition to impose more severe penalties in food and drug cases. Under the Meat Inspection Act, 81 seeming violations were reported and convictions secured in 64 cases, in seven carrying sentences of imprisonment. Under the Live Stock Quarantine Acts, fines aggregating $10,275 were imposed in 93 cases. Under the Lacey Act regulating interstate traffic in game, 154 cases were submitted, and convictions secured in 73 actions. Under the Insecticide Act of 1910, 108 cases were reported and 59 cases resulted in fines or condemnation. The Twenty-eight Hour Law governing the shipment of live stock was vigorously enforced; 1,037 apparent violations were reported and penalties aggregating $61,695 recovered. Under statutes applying to forests, 436 cases of trespass resulted in recovery of $27,764.91, 73,000 acres of timber lands were regained, and legal work incident to the acquisition of 713,000 acres was performed.



DAVID FRANKLIN HOUSTON,
Secretary of Agriculture.

To eliminate duplication of effort and friction and bring about greater co-ordination between the State land grant colleges and experiment stations and the Department, several conferences were held with representatives of these institutions. The executive committee and the Secretary signed a memorandum formulating certain views. In substance this memorandum holds that the Federal department's primary function is to undertake the study of problems and regulatory work that are more particularly regional, interstate and international in character and that upon the station should rest the responsibility of investigating problems within its state.

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The discussion about using starch in Compressed Yeast has reached the point in the United States of a decision forcing those who used it to declare the fact on the wrapper or label.

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In Austria where they do things more thoroughly, the chemists of the Royal Experiment Station of Vienna investigated the question for some years and finally reported against the use of Starch in Compressed Yeast for the reason that when mixed with Yeast "STARCH IS LIABLE DURING A CERTAIN STAGE OF THE DETERIORATION TO HIDE PUTREFACTION OF THE YEAST AND THEREBY FAVORS THE MARKETING OF PRODUCTS UNWHOLESOME AND DANGEROUS TO THE PUBLIC HEALTH."

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ARKANSAS—John H. Page, Commissioner of Mines, Manufacturers and Agriculture, Little Rock.

Dr. C. H. Hoffman, Department Chemist, Little Rock.

CALIFORNIA—M. E. Jaffa, M. S., Director State Food and Drug Laboratory, University of California, Berkeley.

COLORADO—George T. Bradley, State Food Commissioner, Denver.

CONNECTICUT—Hon. Hubert F. Potter, Dairy and Food Commissioner, Hartford.

DELAWARE—A. E. Frantz, M. D., Secretary, State Board of Health, Wilmington.

DISTRICT OF COLUMBIA—William C. Woodward, M. D., Health Officer, Washington, D. C.

FLORIDA—R. E. Rose, Chief Chemist, State Board of Agriculture, Tallahassee.

GEORGIA—R. E. Stallings, Chief Chemist, State Board of Agriculture, Atlanta.

IDAHO—James H. Wallis, State Dairy, Food and Sanitary Inspector, State Sealer of Weights and Measures, Boise.

ILLINOIS—W. Scott Matthews, State Food Commissioner, Chicago.

INDIANA—H. E. Barrard, State Food and Drug Commissioner, Indianapolis.

IOWA—W. B. Barney, State Dairy and Food Commissioner, Des Moines.

KANSAS—S. J. Crumbine, M. D., Secretary State Board of Health and Chief Food and Drug Inspector, Topeka.

E. H. S. Bailey, Ph. D., Chemist State Board of Health, Lawrence.

Julius T. Williard, Chemist, State Board of Health, Manhattan.

KENTUCKY—R. M. Allen, Head of Food and Drug Division, Agricultural Experiment Station, Lexington.

LOUISIANA—Dr. Oscar Dowling, State Food Commissioner, New Orleans.

Geo. B. Taylor, State Analyst, New Orleans.

MAINE—Chas. D. Woods, Director, Agricultural Experiment Station, Orono.

MARYLAND—Charles Caspari, Jr., State Food and Drug Commissioner, Baltimore.

MASSACHUSETTS—Herman C. Lythgoe, S. B., Chemist, State Board of Health, Boston.

Mark W. Richardson, M. D., Secretary, State Dairy Bureau, Boston.

MICHIGAN—James W. Helme, State Dairy and Food Commissioner, Lansing.

MINNESOTA—Joel G. Winkjer, State Dairy and Food Commissioner, St. Paul.

MISSISSIPPI—W. F. Hand, State Chemist, Agricultural College, Jackson.

MISSOURI—F. H. Fricke, State Food and Drug Commissioner, St. Louis.

Wm. P. Cutler, M. D., State Dairy Commissioner, Columbia.

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NEW HAMPSHIRE—Irving A. Watson, M. D., Secretary State Board of Health and Director of Laboratory, Concord.

NEW JERSEY—R. B. Fitz-Randolph, Chief, Division of Food and Drugs and Director of the State Laboratory of Hygiene, Trenton.

NEW YORK—Calvin J. Huson, Commissioner. George L. Flanders, Counsel, Albany.

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NORTH DAKOTA—E. F. Ladd, State Food Commissioner and Chemist, Fargo.

OHIO—Sylvanus E. Strode, State Dairy and Food Commissioner and State Sealer, Columbus.

OKLAHOMA—Dr. J. C. Mahr, Commissioner of Health, Oklahoma City.

U. S. Russell, in Charge of Pure Food and Drugs, State Health Department, Oklahoma City.

OREGON.—J. D. Mickle, Dairy and Food Commissioner, Portland.

PENNSYLVANIA—James Foust, State Dairy and Food Commissioner, Harrisburg.

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SOUTH CAROLINA—E. J. Watson, Commissioner of Agriculture.

Francis L. Parker, Chemist.

SOUTH DAKOTA—Guy G. Frary, State Food and Drug Commissioner, Vermillion.

TENNESSEE—Lucius P. Brown, State Pure Food and Drug Inspection Commissioner, Nashville.

TEXAS—J. S. Abbott, Food and Drug Commissioner, Austin.

UTAH—Willard Hansen, State Dairy and Food Commissioner, Salt Lake City.

VERMONT—Charles S. Caverly, M. D., President, State Board of Health, Rutland.

B. H. Stone, M. D., Director of Laboratory, Burlington.

VIRGINIA—William D. Saunders, State Dairy and Food Commissioner, Richmond.

WASHINGTON—J. H. Perkins, Commissioner of Agriculture, Seattle.
J. Higgins, Chief Deputy of Food and Drug Department.

WEST VIRGINIA—John M. Millan, Secretary State Board of Agriculture, Charleston.

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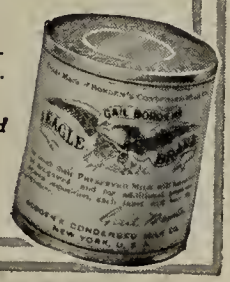


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AUSTIN PARKER AT TARIFF HEARING.

Hogs are not good travelers. The quality of ham and bacon bears a relationship to the distance which the animals are shipped to packing houses. Therefore, in order to assure people the purest and best products local firms which get their supplies from a comparatively narrow radius should be encouraged by low railroad rates.

This argument was advanced at the hearing being conducted at St. Paul by the State Railroad commission on the distance tariff schedules by George A. Hormel of Austin, head of the packing house that bears his name. It was the first linking of pure food with low rates which ever has been put up to the commission.

"Most of the hogs we use are shipped but short distances," said Mr. Hormel. "They make a better and purer product than do hogs shipped to Chicago."

Mr. Hormel argued for a scale of rates more nearly corresponding to those in force in Iowa. He reviewed the history of his firm since its establishment in 1892 when but 612 hogs were killed, to this year when 214,000 were used and 60,000,000 pounds of packinghouse products shipped out.

"These rates are a vital matter to us," he said. The margin of profit in our business is small. Even under the present scale we have had difficulty in securing animals because of the proportionately lower rate to Chicago."

O. W. Oberg, traffic manager for the Hormel company, showed how such an industry benefits a small community and the railroads entering it. He said that last year 4,326 car loads of hogs were shipped into Austin. The business of the concern amounted to $7,000,000 for the year.

"My opinion is," said the witness, "that all other things being equal as compared to Iowa, the proposed maximum distance tariff rates will build a tariff wall between us and that state."

He said that the present special commodity rate on fresh meat to the Twin Cities is 17 cents and the proposed 22 cents. Under the old tariff it cost $34 to ship a car; after January 1 it will cost $44.12. But the Des Moines packer, enjoying an interstate rate of 18.5 cents can ship a car to the Twin Cities for $37, or $7.12 less than can the Hormel company under the Cashman schedule.

Commissioner Staples called Mr. Oberg's attention to the fact that the rates have not been increased by the commission and the maximum schedule is the same as it was before.

FOOD AND DAIRY DEPARTMENT.

The Iowa Food and Dairy Department has developed into an important part of the work done for the people by the state, according to the Des Moines Capital.

Commissioner W. B. Barney's annual report, filed recently, emphasizes the importance of the dairy business in Iowa and gives important recommendations. These reports should be printed in pamphlet form and given general circulation, especially among the farmers.

Iowa creameries get more than the New York market prices for their butter. Sioux City leads the state in creameries, but there is no good reason why Sioux City should pass Des Moines in this industry. Iowa is the great dairy state of the union, and this important branch of farming is just fairly beginning.

Commissioner Barney, with twenty-six inspectors and lecturers, occupies small offices east of the state house, in an old flat building. But Barney's department will grow, and some day have a building of its own and take its rank as one of the great service departments of state affairs.

NEW YORK INSPECTORS BUSY.

Food inspectors of the New York Department of Health said that they had been active in the condemnation of poultry. One thousand eight hundred and seventy-six pounds of turkeys were weeded out from the incoming shipments and labelled with the "unfit for consumption" mark. Thanksgiving feasters were also deprived of 340 pounds of chicken, and 2,240 pounds of rabbit flesh were thrown to the junk heap as unfit for the Thanksgiving pie. Altogether, the Department's meat inspectors condemned 4,113 pounds of assorted poultry.

In addition to this, 3,000 pounds of rabbit meat and 700 pounds of chickens were put into the doubtful pile, according to figures which came in to Dr. Marion B. McMillan, director of the Bureau of Food Inspection. This assortment will be gone over once more before being finally condemned or approved.

HELIUM AND NEON.

At the scientific meeting of the chemical society in London recently an interesting communication was read on the subject of the presence of helium and neon in the tubes containing hydrogen through which an electric discharge had been passed.

Not long since Prof. J. Norman Collie and Prof. H. S. Patterson also stated that both helium and neon could be produced in hydrogen gas by passing a powerful electrical discharge through hydrogen.

A paper with similar statements was presented the society by Dr. Mason of America wherein he also described how he obtained neon by subjecting hydrogen to the same treatment. These documents and experiments show great progress.

The so-called "strawberry oil," according to the Government's analysis, was a liquid synthetically prepared, containing no strawberries and no oil of strawberries, and the pineapple and banana oils were found to consist of liquids synthetically prepared containing none of the fruit or oil of the fruit indicated on the label.

The defendant company withdrew its former plea of not guilty and entered a plea of guilty. The court imposed a fine of $100 and costs.

Nearly 25,000 cans of tomato pulp were exploded at Cincinnati, Ohio, by government officials when they caused the city dump, in which the cans had been buried, to be set on fire. The heat from the fire in the dump caused the contents of the cans to become super-heated. Some of the cans were hurled 200 feet into the air. The cans were part of a lot of 40,000 which had been seized and condemned.

The U. S. Department of Agriculture, after extensive study of the practice of certain poultry packers in feeding chickens with quantities of sand just before they are killed, so that the poultry will weigh more, has issued a warning to housewives to scrutinize carefully the craws of any undressed chickens they buy, and to watch the craws of chickens that are being dressed by the butcher.

The government secured a conviction under the amended pure food and drugs act at Denver, Colo. A patent medicine known as "Stramoline" was seized in Denver and confiscated and destroyed as provided by the law because it was advertised as a specific for consumption. The amended act makes it an offense to transport in interstate commerce drugs which are branded in a false and fraudulent manner.

Dr. Lucius F. Brown, head of the Tennessee State Pure Food Department, has had printed the laws recently passed by the Legislature regulating and aiding his department in serving the people of the state in keeping its food and drug supplies pure and wholesome. He has had these laws neatly prepared in pamphlet form and will furnish copies of them to anybody desiring them.

The campaign of the State Dairy and Food Department of Minnesota against violators of the law requiring a license fee of $25 for selling cigarettes is bringing results. Commissioner Joel G. Winkjer announced that two convictions have been obtained at Pipestone. Mrs. D. M. Wigham was fined $1 and Thomas Sky drew a $10 penalty from Judge C. W. Gilmore.

The National Civic Federation will hold its convention in New York December 11. Among those who will address the meeting on pure food topics are Dr. Carl L. Alsberg, James H. Wallis and Dr. H. W. Wiley.

Food and Drug Law

McLanahan & Burton announce the initiation of a Department of Food and Drug Law, in charge of Mr. Gustavus B. Spenee, for the past four years a member of the Office of the Solicitor, United States Department of Agriculture.

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